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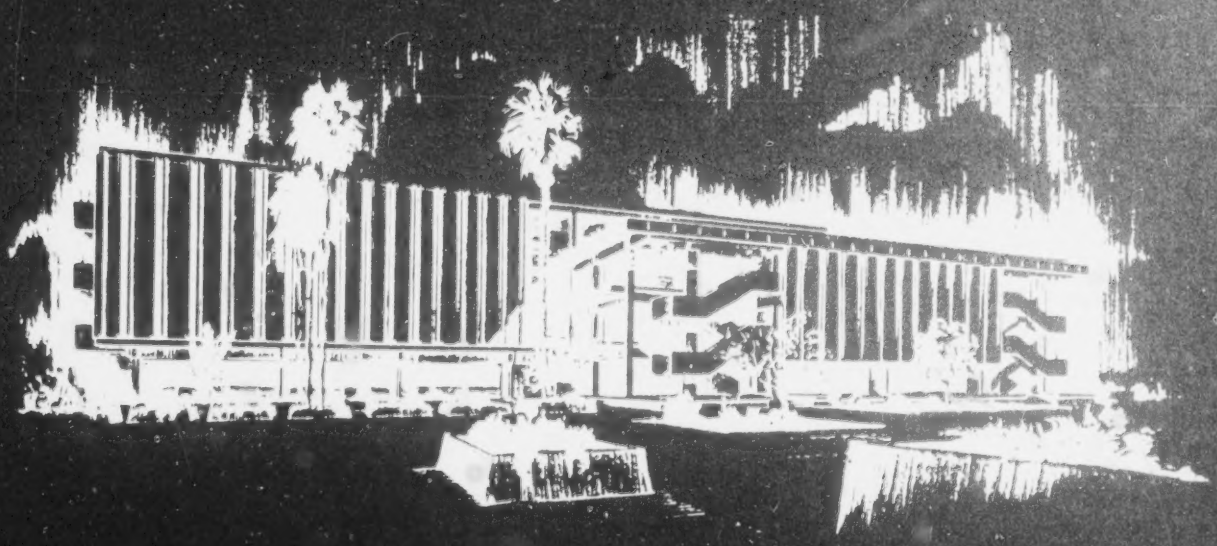

1980 in Review:

Consumer Prices, Food, Construction, Tourism

Bureau of Business and Economic Research
College of Business Administration
Arizona State University

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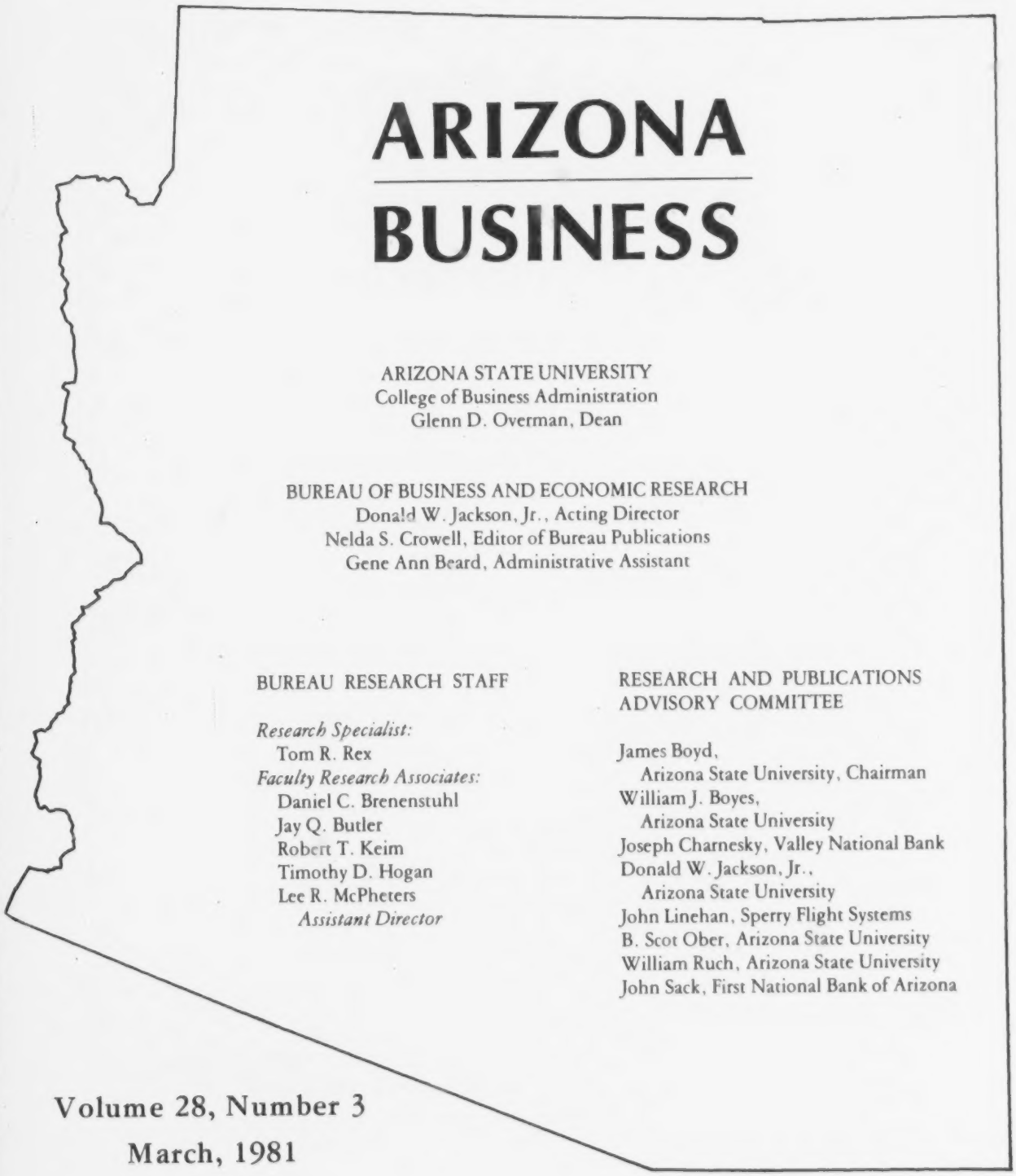

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Report To The Reader

As expected, 1980 was a year of economic belt-tightening. This issue of *Arizona Business* presents the year-end review of four major studies done throughout the year by the Bureau of Business and Economic Research in the College of Business Administration, Arizona State University.

The most alarming news is the Consumer Price Index, which rose an average of 15.2 percent during the year. Food prices were up 9.5 percent, and number of residential housing permits dropped a dramatic 27 percent. Tourism expenditures are up, but only 12 percent compared to 18 percent in 1979, putting the 1980 increase below the inflation rate. Furthermore, the number of airline tourists dropped by 7.1 percent.

Nevertheless, a few bright spots persisted during the year. Even though the Consumer Price Index rose at a record rate, the largest increase occurred in housing, which means that people who did not buy a home in 1981 did not experience this high inflation rate. On the other hand, transportation and Medical Care were two other areas that showed dramatic increases, and those may indeed affect a wider spectrum of consumers.

Dr. Timothy Hogan reports that economists are forecasting a continuation of double digit inflation for this year, but conditions are expected to improve as the year progresses. The outlook for 1982 is significantly brighter, he suggests.

Food prices, which rose only 9.5 percent during 1980, exhibited a slower rate of increase than the previous year's 10.6 percent rise but a higher rate than the nation's 8 percent increase. The outlook for 1981, however, is not nearly so bright for food prices. Dr. Hogan reports that consumers can expect price increases in virtually every area, especially meats, poultry and eggs. Record high cattle prices could occur before mid-year. Fats and oils will experience sharp increases, and sugar prices will also rise, but the annual rate of increase for 1981 should stay below 10 percent.

The construction industry was buoyed by a spurt in the industrial permits and a steady increase in the commercial permits in spite of the housing slump, according to Dr. Jay Q. Butler. He reports that single-family construction will continue to be slow throughout the early months of 1981, but interest rates can be expected to drop somewhat by the end of the year with a resulting surge in construction activity.

Consumer Prices: A Record Increase in 1980

TIMOTHY D. HOGAN
JOHN CLIFFORD ARMSTRONG

During 1980, the annual average increase in consumer prices in the Phoenix area was 15.2 percent — the largest ever recorded in the eleven-year history of the Metropolitan Phoenix Consumer Price Index (CPI). After a brief review of the nature of the Metropolitan Phoenix CPI, this article examines the pattern of consumer price increases in the Phoenix area during 1980 in some detail and discusses the outlook for inflation in 1981.

BACKGROUND ON THE METROPOLITAN PHOENIX CPI

The United States Bureau of Labor Statistics (BLS) has, for almost sixty years, compiled the statistical measure most often used to measure inflation — the Consumer Price Index. The BLS now conducts price surveys in 85 urban areas throughout the United States and produces a national Consumer Price Index as well as local indexes for twenty-eight metropolitan areas in the country.

Because Phoenix has never been one of the urban areas surveyed by the BLS, the Arizona State University Bureau of Business and Economic Research developed a Metropolitan Phoenix CPI in 1974. The methodology for the Phoenix CPI was developed with the help of the BLS and is consistent with the methodology used in producing the national index. The first Metropolitan Phoenix CPI was based on a comprehensive price survey undertaken in fall, 1974; in order to provide historical price trends, Phoenix area indexes for the years 1969 through 1973 were reconstructed on the basis of price information compiled for the Bureau's Metropolitan Phoenix Urban Family of Four Budget Study. In this way, the fourth quarter of 1969 was used as the base period, and CPI figures for the fourth quarters of 1969 through 1974 were derived. Quarterly CPI figures have been compiled by the Bureau since 1975.[1] Cosponsor of the current CPI study is Valley National Bank.

Following their policy of periodic updating of CPI methodology, the Bureau of Labor Statistics began a revised CPI series in January, 1978.[2] Corresponding changes in methodology for the local CPI were also implemented during 1978. Beginning with the first quarter of 1979, publication of Metropolitan Phoenix CPI figures were based upon the revised methodology. For reference purposes, the complete twelve-year Metropolitan Phoenix CPI figures are presented at the end of this article. (See pages 10-11.)[3]

Before examining what happened to Phoenix area consumer prices during 1980, it is important to discuss what the CPI measures as well as what it does not measure. As its name implies, the Consumer Price Index measures changes in the prices of goods and services typically purchased by consumers. It compares the cost of a *fixed* market basket of goods and services in a given

---

Increases in the cost of Transportation and Housing were the main contributors to the 15.2 increase in the 1980 Consumer Price Index for the Phoenix area.

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time period with the cost of purchasing the *same* market basket during a particular base period. At present, the United States CPI compares current consumer prices with prices of similar goods and services in 1967.

Since no comprehensive consumer price survey information for the Phoenix area was collected prior to 1969, the Bureau's Metropolitan Phoenix CPI employs 1969 as its base year; thus the price level during 1969, is equal to 100. If the value of the CPI in a given period were 200, this would indicate that prices in general are twice as high as they were during the base period; in other words, it would cost two times as much to buy the *same* market basket of goods and services as it did during the base period.

The CPI is the statistical measure most often used to monitor inflation. Specifically, what is commonly termed "the inflation rate" for a given period is frequently derived by computing the annualized percentage change in the CPI for that period. For example, if the CPI were to increase to 220 from a level of 200 a year previous, the annual rate of inflation in consumer prices would be 10 percent during that year (that is, the index increased 20 points during the year from an initial level of 200 — a 10 percent increase).

Several different methods can be used to calculate the inflation rate for a year. One method is to use the annual average percent change, which in the Phoenix area resulted in a 15.2 percent inflation rate. This is the method used in this article. The process involves averaging the four quarterly index values for a given year and comparing this average to the average of the previous year. The national index, which is monthly however, uses the twelve monthly indexes to compute the average.

The second method of calculating the inflation rate is simply to compute the percentage difference between the index value at the end of the year and the index value at the end of the previous year. This is the method used in the quarterly CPI reports published in *Arizona Business*. Thus, in 1980 in Phoenix, the annual average percent change was 15.2 percent, but the change from the end of 1979 to the end of 1980 was only 13.3 percent. The difference between the two methods reflects the pattern of inflation during the year which was much higher in the first quarter than in later quarters, meaning that, on the average, consumers paid more for goods during the year than they would have if the inflation rate had been constant throughout the year.

A third method of calculating the inflation rate is not used in Phoenix, but is frequently used with the national index. This method involves computing the inflation rate for one month into an annual rate by multiplying the one month percentage change by twelve, at a compounded rate. Thus, it is possible to have three very different inflation rates expressed at the same time.

When first published by the United States Bureau of Labor Statistics, the CPI was called a cost-of-living index rather than a price index, and it is widely used as a measure of changes in living costs. This use of the CPI as a cost-of-living index has led to increasing controversy concerning its accuracy as a measure of inflation. Because it has been designed to measure price changes in a representative market basket of goods and services purchased by consumers, the CPI is not really a cost-of-living index. The CPI does not include changes in significant components of most households' living costs — most notably income and Social Security taxes. With its fixed market basket, the CPI also does not reflect changes over time in consumer taste or product offerings. The CPI is also criticized for its treatment of homeownership costs. Changes in the current purchase prices of homes and in current mortgage interest rates are included in the CPI in the same way that changes in the current price of apples or children's shoes are. Critics argue that homeownership should be treated differently since, for example, home purchases are usually financed over a long period of time. Furthermore, home purchases are partially an investment in real property, and a home purchase has important tax implications. Because of such limitations, critics contend that the CPI has overstated the "real" increases in living costs experienced by most consumers in recent years. The CPI measures changes in consumer prices; the way those price changes affect each household's living costs depends upon how that household chooses to spend its income.[4]

Finally, it should also be noted that the CPI measures only relative changes in price levels; it *cannot* be used to compare absolute prices among different regions. A comparison of the Metropolitan Phoenix CPI with the national CPI (or indexes for any other urban area) does not indicate whether consumer prices in the Phoenix area are higher or lower than the average prices throughout the United States (or prices in the comparison city). If the CPI for city "A" were 200 and 250 for city "B", these figures indicate only that prices have increased more rapidly in city "B" since the base period. Since price levels could have been quite different in the two cities during the base period, it is impossible to tell from the CPI whether current prices are higher in city "B" or in city "A".

PHOENIX CONSUMER PRICES IN 1980

In spite of its limitations, the Consumer Price Index continues to be the most widely used and accepted measure of price changes. As measured by the Metropolitan Phoenix CPI, consumer prices rose more rapidly in 1980 than they had in any year during the 1969-1979 period for which statistics are available. The pattern of price increases portrayed by the *All Items* category of the CPI for the entire twelve years is presented in Figures I and II. The previous high of 14.5 percent in 1979 was surpassed as the annual average inflation rate reached 15.2 percent in 1980. While the pace of inflation during the past year did increase above its 1979 rate, it is some comfort that the trend of successively higher rates of inflation did moderate with the rate in 1980 only slightly higher than in the previous year. The rate of inflation in Phoenix area consumer prices had shown dramatic acceleration during the 1976-1979 period — from 5.3 percent in 1976, 7.6 percent in 1977, 10.2 percent in 1978, and 14.5 percent in 1979 — as a result of the economic expansion after the 1974-1975 recession and skyrocketing energy prices. With a recession expected during 1980, a slowing in the rate of inflation was anticipated last year. Nevertheless, record high mortgage rates and continued sharp increases in energy costs contributed to the 15.2 percent jump in the Metropolitan Phoenix CPI experienced in 1980. A detailed breakdown of the pattern of increases in each expenditure category in the Phoenix area CPI is set forth in Table 1. The relative proportion that each expenditure category constitutes in the total market basket of consumer goods and services has also been included in the table to indicate the relative contribution of individual increases in the overall inflation rate.[5]

Of the seven major categories posted in Table 1, prices in five major categories rose faster in 1980 than in 1979: *Food and Beverages* (10.6 percent), *Transportation* (18.4 percent), *Medical Care* (14.6 percent), *Entertainment* (12.9 percent), and *Other Goods and Services* (7.7 percent). On the other hand, prices in *Housing* (17.9 in 1980 versus 18.8 percent in 1979) and *Apparel and Upkeep* (1.7 compared with 7.3 percent) increased less than in 1979.

While prices of *Food and Beverages* rose significantly (10.6 percent), this increase was lower than the 1978 rate of 12.3 percent and only slightly higher than that recorded for 1979 (10.2 percent). Of the two *Food and Beverages* subcategories, Food at Home rose at a slower pace in 1980 (9.5 percent) than in 1979 (10.6 percent). Large increases in Cereal and Bakery Products

FIGURE I

METROPOLITAN PHOENIX
CONSUMER PRICE INDEX
Annual Average Indexes 1969-1980

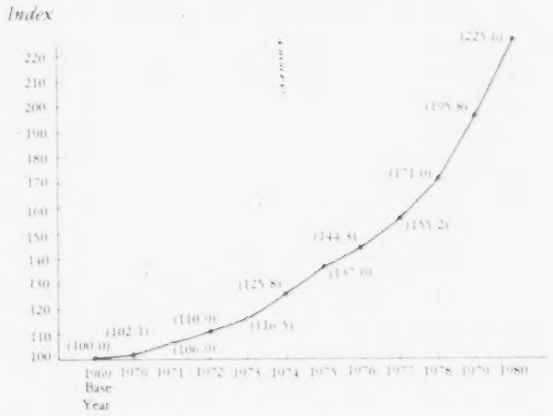
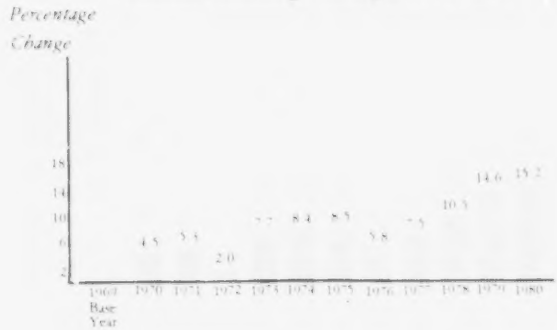


FIGURE II

METROPOLITAN PHOENIX
CONSUMER PRICE INDEX
Annual Percentage Changes 1969-1980



(12.1 percent) and Other Foods at Home (14.1 percent) were tempered by a modest 3.6 percent rise in Meats, Poultry, Fish, and Eggs. (A detailed analysis of 1980 Phoenix Food at Home prices is presented in the following article.) The slower increase of Food at Home prices was, however, completely offset by a large increase in Food Away from Home prices. Phoenix area full-service and fast-food restaurants increased prices by 14.0 percent in 1980, compared with 9.3 percent in 1979.

Price increases in the *Housing* category were a major factor in the record high rate set by the Metropolitan Phoenix CPI last year. Of the three major subcategories

TABLE 1

METROPOLITAN PHOENIX CONSUMER PRICE INDEX
SELECTED ITEMS 1979-1980
(1969 = 100 Unless Otherwise Noted)

Weight[a] (Expressed as a percentage of ALL ITEMS)	*Group*	*1979 Yearly Average*	*1980 Yearly Average*	*Percentage Change 1979 to 1980*
100.000	ALL ITEMS	195.8	225.6	15.2
17.437	*Food and Beverages*	190.3	210.8	10.8
16.226	Food	194.4	215.5	10.9
10.847	Food at Home	205.9	225.5	9.5
1.297	Cereals and Bakery Products	196.6	220.5	12.2
3.278	Meats, Poultry, Fish, and Eggs	215.4	223.0	3.5
1.527	Dairy Products	184.1	201.8	9.7
1.635	Fruits and Vegetables	198.7	218.3	9.9
3.109	Other Foods at Home	218.3	249.1	14.1
5.379	Food Away From Home	171.2	195.2	14.0
1.212	Alcoholic Beverages	136.6	149.8	9.6
46.322	*Housing*	193.5	228.1	17.9
33.311	Shelter	196.8	239.1	21.5
6.479	Rent, Residential	164.2	176.0	7.2
26.763	Homeownership	200.3	250.2	25.0
9.366	Contracted Mortgage Interest Cost	126.0[b]	183.7[b]	45.8
11.773	Home Purchase	116.4[b]	134.0[b]	15.1
5.032	Fuel and Other Utilities	213.3	240.1	12.6
2.650	Gas and Electricity	115.0[b]	138.2[b]	20.1
2.093	Other Utilities and Public Services	101.0[b]	103.2[b]	2.2
7.980	Household Furnishing and Operations	177.1	187.9	6.1
5.341	*Apparel and Upkeep*	169.1	172.0	1.7
4.795	Apparel Commodities	164.7	164.1	-0.4
1.496	Men's and Boys' Apparel	144.7	150.1	3.7
1.797	Women's and Girls' Apparel	167.3	159.6	-4.6
0.692	Footwear	203.0	204.2	0.6
0.547	Apparel Services	110.0[b]	123.8[b]	12.6
17.657	*Transportation*	204.3	241.9	18.4
16.677	Private Transportation	204.2	240.6	17.8
2.337	New Car	105.7[b]	120.2[b]	13.7
2.705	Used Car	90.3[b]	93.3[b]	3.3
4.327	Gasoline	131.0[b]	179.0[b]	36.7
2.045	Vehicle Maintenance and Repair	102.4[b]	111.3[b]	8.6
1.891	Vehicle Insurance	103.9[b]	124.4[b]	19.8
0.980	Public Transportation	205.9	264.1	28.3
0.585	Airline Fare	114.7[b]	148.3[b]	29.3
5.350	*Medical Care*	266.6	305.5	14.6
2.465	Professional Services	112.3[b]	134.0[b]	19.3
0.306	Hospital and Other Medical Care Services	106.5[b]	126.7[b]	19.0
1.795	Health Insurance	102.2[b]	112.0[b]	9.6
4.341	*Entertainment*	167.7	189.3	12.9
1.028	Sporting Goods and Equipment	110.5[b]	124.6[b]	12.8
1.182	Toys, Hobbies, and Other Entertainment	109.6[b]	124.3[b]	13.4
1.597	Admission, Fees, Other Entertainment	97.9[b]	110.1[b]	12.5
3.551	*Other Goods and Services*	201.5	217.0	7.7
1.624	Personal Care	194.7	214.5	10.2

[a]Several levels of detail are provided in this table. The weights of major categories equal 100. The weights of the other items shown are components and subcomponents of the major categories. Not all detail items are shown, thus the weights associated with these detail items will not necessarily total the weights of the major categories; the weights are illustrated to allow comparison of the significance of the various items.

[b]Base period = Fourth quarter, 1978.

Source: Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

in *Housing*, only Household Furnishings and Operations experienced a moderate increase (6.1 percent). Fuel and Utilities posted a 12.6 percent rise, led by significant increases in energy prices — gas and electricity (20.1 percent). Shelter, the most heavily weighted subcategory in the CPI (33.3 percent of *All Items*), jumped ahead by 21.5 percent during 1980, fueled by soaring contracted mortgage interest costs (up 45.8 percent) and a substantial increase in home purchase prices (15.1 percent). The 1980 rise of prices in the *Housing* category (17.9 percent) does, however, compare favorably with the 1979 increase of 18.8 percent. However, even though the rate of increase for *Housing* declined in 1980, it did not drop enough to offset increases in other categories.

Prices in the *Apparel and Upkeep* category rose only slightly in 1980 (1.7 percent), down from the 7.4 percent increase of 1979 and the 7.7 percent increase of 1978. A jump in apparel services (laundry and apparel repair) of 12.6 percent was countered by a decrease in the more heavily weighted subcategory of apparel commodities (-0.4 percent).

Transportation is the second most heavily weighted major category in the CPI (17.7 percent of *All Items*). With oil prices still rising sharply, the 18.4 percentage increase in the Phoenix *Transportation* prices during 1980 was a record rate of price increase for this expenditure category. Large increases in the price of gasoline (36.7 percent), vehicle insurance (19.8 percent), and new automobiles (13.7 percent), pushed the subcategory of Private Transportation to a 17.8 percent rise. Prices in the Public Transportation subcategory rose even more rapidly during 1980 (28.3 percent), due to considerable price increases for almost every type of public transportation. Airline fares in particular gained substantially (29.3 percent) despite increases in industry competition.

In the category of *Medical Care*, sizable gains in the cost of professional services (19.3 percent) and hospital care (19.0 percent) led to an overall increase of 14.6 percent in 1980 as compared with the 8.4 and 11.4 percent rises posted during 1978 and 1979.

Prices in the *Entertainment* category also rose above their 1979 level (6.8 percent). The 1980 increase of 12.9 percent reflects across-the-board gains in entertainment supplies and admission fees. The category of *Other Goods and Services* rose by 7.7 percent in 1980, up from the 5.7 percent increase posted for 1979. Accelerating tuition and legal fees, and increased costs of Personal Care (cosmetics, beauty parlor services, and smoking accessories) contributed to this increase.

PHOENIX AREA INFLATION COMPARED WITH OTHER AREAS

During 1980 prices seem to have risen more rapidly in the Phoenix area than in the nation as a whole (15.2 percent in Phoenix versus 13.5 percent for the United States city-average). Comparative data between the Phoenix Metropolitan CPI and that of the United States, along with the Chicago and Los Angeles-Long Beach metropolitan areas, are shown in Table 2. Examination of the relative price changes for the Phoenix area and the United States reveals that Phoenix increases in 1980 were larger than the national average for all but two major categories. Prices of *Food* (10.9 percent compared with 8.6 percent), *Housing* (17.9 percent versus 15.7 percent), *Transportation* (18.4 percent versus 17.8 percent), *Medical Care* (14.6 percent versus 10.9 percent), and *Entertainment* (12.9 percent versus 8.9 percent) rose faster in Phoenix than in the nation as a whole. Only price increases for *Apparel and Upkeep* (1.7 percent versus 7.1 percent) and *Other Goods and Services* (7.7 percent compared with 9.0 percent) were smaller in Phoenix than in the nation as a whole. Within the *Housing* category, Homeownership was the only subcategory in the Metropolitan Phoenix CPI that rose more rapidly than the national averages. Increases in Residential Rent, Fuel and Utilities, and Household Furnishings and Operations were all higher for the rest of the country than in the Phoenix area. *Apparel and Upkeep* showed the largest discrepancy between Phoenix and the nation as a whole. Area clothing and footwear price increases were substantially below the national average.

Relative to the two metropolitan areas historically used for comparison purposes, the 15.2 percent increase recorded for the Phoenix area in 1980 outstripped the rate of consumer price increases in Chicago (14.4 percent) but compared favorably with the 15.7 percent inflation rate in the Los Angeles area. Phoenix area prices rose more rapidly in the categories of *Food, Medical Care*, and *Entertainment* than in either of the other two comparison cities. *Housing*, *Apparel and Upkeep*, and *Other Goods and Services*, on the other hand, increased more rapidly in the Los Angeles area. Chicago led in the *Transportation* category.

The fact that the Metropolitan Phoenix Consumer Price Index has risen more rapidly than that of the United States as a whole or Chicago does not mean that prices themselves are higher in Phoenix than elsewhere in the nation. The CPI measures only *changes* in prices over time; it cannot be used to compare the actual

TABLE 2

CONSUMER PRICE INDEX CHANGES
1979 - 1980
Phoenix, United States, Chicago, and Los Angeles

Group	Phoenix[a] 1980 Average Index	Phoenix[a] 1980 Percentage Change Over 1979 Average	United States 1980 Average Index	United States 1980 Percentage Change Over 1979 Average	Chicago[b] 1980 Average Index	Chicago[b] 1980 Percentage Change Over 1979 Average	Los Angeles[c] 1980 Average Index	Los Angeles[c] 1980 Percentage Change Over 1979 Average
ALL ITEMS	225.6	15.2	246.8	13.5	245.5	14.4	247.3	15.7
Food	215.5	10.6	254.6	8.6	258.2	9.0	248.7	8.4
Food at Home	225.5	9.5	251.5	8.0	252.5	7.9	250.2	9.1
Food Away From Home	195.2	14.0	267.0	9.9	271.1	11.3	247.2	7.1
Housing	228.1	17.9	263.3	15.7	255.7	17.1	268.0	19.7
Shelter	239.1	21.5	281.7	17.5	276.7	19.0	294.5	21.9
Rent, Residential	176.0	7.2	191.6	8.9	172.7	7.2	211.3	12.1
Homeownership	250.2	25.0	314.0	19.7	323.6	22.3	322.1	24.6
Fuel and Other Utilities	240.1	12.6	278.6	16.4	246.0	16.1	230.7	21.5
Household Furnishing and Operations	187.9	6.1	205.4	7.9	200.4	10.0	198.5	8.4
Apparel and Upkeep	172.0	1.7	178.4	7.1	157.9	5.7	169.3	10.5
Men's and Boys' Apparel	150.1	3.7	168.4	4.7	129.1	3.0	153.1	6.3
Women's and Girls' Apparel	159.6	-4.6	155.1	2.1	138.0	1.1	142.7	1.8
Footwear	204.2	0.6	190.3	7.7	174.5	4.9	182.8	11.6
Transportation	241.9	18.4	249.7	17.8	253.5	18.6	255.2	17.3
Private	240.6	17.8	249.2	17.4	254.7	18.4	256.9	16.5
Public	264.1	28.3	251.6	25.6	237.2	21.5	221.0	34.3
Medical Care	305.5	14.6	265.9	10.9	272.9	12.9	275.6	12.6
Entertainment	189.3	12.9	205.3	8.9	221.1	12.1	183.4	9.0
Other Goods and Services	217.0	7.7	214.5	9.0	213.9	9.1	208.7	10.3

[a]Phoenix metropolitan SMSA
[b]Chicago and Northwest Indiana SMSA
[c]Los Angeles-Long Beach area SMSA

Source: Metropolitan Phoenix data: Bureau of Business and Economic Research, College of Business Administration, Arizona State University; other data computed from indices compiled by the U.S. Department of Labor, Bureau of Labor Statistics.

prices or living costs from one area to another. A higher Consumer Price Index value for Phoenix means only that prices in Phoenix have increased faster since the base period than they have in the nation as a whole or in the comparison cities. Local prices may simply be catching up with the rest of the country.

INFLATION OUTLOOK FOR 1981

After reviewing the inflation in 1980, the obvious question is, How much will consumer prices increase in the Metropolitan Phoenix area during 1981? Each year in the December issue of *Arizona Business*, Professors John A. Cochran and Richard D. Winkelman present economic forecasts for the upcoming year. In his latest forecast for the United States economy, Professor Cochran predicted that "the national inflation rate should fall somewhat from the more than 13 percent rate at the retail level in 1980 to about 10 percent for 1981."[6] With respect to the Phoenix area, Professor Winkelman's forecast for 1981 was based upon the ASU Forecasting Model, which predicted a percentage

increase in the Metropolitan Phoenix CPI for this year of 12 percent.[7]

These forecasts are consistent with forecasts offered by other economists and/or forecasting models. For example, in their 1981 forecast issues, *Business Week's* panel of thirty-three business economists predicted an inflation rate of 9.6 percent for the year, *U.S. News and World Report* forecast a 10.4 percent increase in prices, and *Fortune* suggested the United States CPI would again show a double digit rise during 1981. In the latest available forecast from its widely-used national econometric forecasting model (which was based upon more current information than the previously cited forecasts), Data Resources Inc. predicts an 11.5 percent increase in the national CPI during 1981, with a continuing decline in inflation over the year so that the annualized rate of increase is forecast to drop to the 10 percent level by the beginning of 1982.[8]

Many explanations can be offered as to why double-digit inflation rates are expected to continue during 1981. First, on a general level, high rates of inflation have now existed in the United States economy for a sufficient period of time so that strong inflationary expectations have been established throughout the economy. Through cost-of-living clauses and other contractual arrangements, big price and wage increases are already a fact of life for 1981 almost irrespective of economic conditions. For example, Michael K. Evans of Evans Economics Inc., a well-known Washington economics consulting firm, asserts that "a 10.5 percent increase in labor costs . . . [in 1981] . . . will set the floor on price increases."[9] Several more specific factors that will push the economy toward double-digit inflation this year could be listed, for example: (1) The impact of the decontrol of domestic oil prices will cause retail prices of gasoline and other petroleum-based products to rise sharply. (2) Retail grocery prices are predicted to increase 10 to 15 percent in 1981 after being a moderating influence on the overall inflation rate in recent years (see the following article for more detailed analysis of probable food price increases). (3) Consumers' utility costs are also forecast to continue to rise rapidly due to oil and gas price increases and higher construction and operating costs.

It is difficult to be very optimistic about the probable trends in consumer prices, given the overwhelming predictions of continued double-digit inflation for 1981 and given the fact that for the past several years economic forecasters have consistently underestimated future inflation rates. Nevertheless, there are a few hopeful signs for the future. First, most economists look for interest rates to decline somewhat during the year. Any decline in mortgage rates will have a direct effect of lowering the cost of homeownership, which is a big component of the market basket of goods and services included in the CPI. Secondly, forecasters generally expect the first part of 1981 to bring most of the worst news on the inflation front with conditions improving as we move toward 1982. Finally, the proponents of President Reagan's proposed economic program argue that expectations play a major role in the inflationary process. Thus, once the public believes that government policymakers really intend to do all in their power to control inflation, inflationary psychology and the actual rate of price increases can be reduced much sooner than most people realize.

SUMMARY AND CONCLUSION

The annual average increase in consumer prices in 1980 was 15.2 percent in the Metropolitan Phoenix Area compared with 13.5 for the United States as a whole. Unlike 1979 when all of the divergence in the Phoenix rate from the national average could be attributed to differences in homeownership costs, local prices increased more rapidly than for the nation as a whole in five of the seven major expenditure categories in 1980.

Based upon a consensus of inflation forecasts, there is little hope for a substantial decline in consumer inflation for the near term. Some economists do predict some slackening in the rate of price increases in the latter part of 1980 as mortgage rates begin to drop and the price effects of decontrol of oil prices recede. However, proposed economic policies by the Reagan administration should not really be counted on to produce significant impacts upon inflation until 1982.[10]

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[1]For details on the development of the Phoenix area budget study, see Don V. Plantz and Don C. Warner, "A Three-Year Analysis of the Cost of Living," *Arizona Business Bulletin*, May, 1971, pp. 3-20. Readers interested in the development of the Metropolitan Phoenix CPI should refer to Stephen C. Hora, "Consumer Prices in the Phoenix Metropolitan Area," *Arizona Business*, August-September, 1975, pp. 3-13.

[2]For a detailed description of these revisions, see the U. S. Department of Labor, Bureau of Labor Statistics, *The Consumer Price Index Revision — 1978*, Washington, D. C., 1978.

[3]See Timothy D. Hogan, "The 1979 Consumer Price Index: Its Background and Significance," *Arizona Business*, March, 1980, pp. 3-9. With their 1978 revisions, the BLS changed their classification scheme for expenditure categories. The categories employed for the

METROPOLITAN PHOENIX CONSUMER PRICE INDEX
1969 THROUGH 1980
(1969 = 100)

							1975				1976			
Group	*1969*	*1970*	*1971*	*1972*	*1973*	*1974*	*I*	*II*	*III*	*IV*	*I*	*II*	*III*	*IV*
ALL ITEMS	100.0	104.2	109.6	112.1	120.8	130.7	133.0	135.2	138.0	141.7	141.5	142.9	145.3	147.3
Food and Beverages	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Food	100.0	102.3	103.4	108.8	126.4	138.7	143.7	145.1	150.6	151.0	148.8	147.8	151.2	150.1
Food at Home	100.0	102.2	102.1	110.7	133.1	145.5	150.9	152.3	159.0	158.5	155.1	153.5	155.4	153.4
Cereals and Bakery Products	100.0	103.3	105.4	108.3	130.3	156.2	168.1	165.4	168.8	159.6	156.2	151.6	152.4	151.3
Meats, Poultry, Fish, and Eggs	100.0	100.1	102.1	117.3	151.4	140.9	142.4	151.0	171.4	171.1	161.8	159.5	160.5	150.2
Dairy Products	100.0	104.6	99.5	101.8	120.6	131.1	134.8	136.4	137.2	143.0	145.5	144.2	146.6	147.2
Fruits and Vegetables	100.0	101.5	106.1	113.9	123.4	145.0	148.7	152.0	158.6	148.9	148.3	148.6	147.2	151.6
Other Foods at Home	100.0	104.0	100.3	106.0	122.0	157.4	167.6	158.6	152.6	156.5	156.2	156.0	162.2	165.7
Food Away From Home	100.0	102.5	107.3	103.4	107.0	119.1	122.7	124.2	126.4	129.3	130.7	131.4	138.9	140.6
Alcoholic Beverages	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Housing	100.0	101.2	103.9	104.8	110.9	121.4	123.8	126.2	128.5	133.1	132.2	133.7	135.2	137.3
Shelter	100.0	100.7	105.9	103.8	109.9	118.4	121.1	122.6	125.3	129.6	127.0	128.9	129.9	131.7
Rent, Residential	100.0	104.2	109.0	112.8	117.6	115.9	112.7	117.3	115.8	122.9	123.6	124.2	125.1	127.7
Homeownership	100.0	99.8	105.1	101.6	108.0	119.0	123.4	123.4	127.3	126.1	122.2	124.6	125.6	126.9
Fuel and Other Utilities	100.0	105.4	105.7	122.0	132.8	147.5	147.5	147.2	149.8	170.2	174.8	172.4	179.6	183.3
Household Furnishings and Operation	100.0	102.3	94.9	104.6	109.2	127.4	129.7	139.4	139.7	138.7	143.3	144.0	145.6	148.5
Apparel and Upkeep	100.0	105.5	104.8	106.9	115.4	123.8	124.2	128.2	129.9	129.9	132.0	133.6	136.1	139.6
Apparel Commodities	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Men's and Boys' Apparel	100.0	102.3	97.9	95.9	108.6	118.2	110.8	111.9	118.9	109.6	110.5	111.7	116.4	121.1
Women's and Girls' Apparel	100.0	104.8	107.3	110.9	115.9	121.6	129.6	133.6	136.8	137.7	138.0	140.0	141.6	144.1
Footwear	100.0	106.5	105.6	112.1	125.0	133.0	144.6	144.0	146.4	147.3	150.2	153.0	158.3	161.6
Transportation	100.0	103.4	120.5	119.7	134.6	141.2	143.6	141.2	144.7	147.7	147.3	151.6	157.2	158.7
Private Transportation	100.0	103.4	120.9	120.0	135.6	141.5	143.8	140.9	144.6	147.5	146.9	151.4	157.5	159.0
Public Transportation	100.0	104.2	112.5	112.5	112.5	134.8	138.2	143.3	143.6	146.1	148.5	150.0	150.5	153.0
Medical Care	100.0	133.2	155.6	164.1	165.2	170.9	180.6	184.0	191.5	197.1	201.8	203.8	206.9	210.1
Entertainment	100.0	98.7	113.4	114.5	115.3	125.7	130.4	130.3	127.3	132.1	133.6	134.8	134.8	139.2
Other Goods and Services	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Personal Care	100.0	109.1	106.0	110.4	120.0	138.5	132.7	137.1	137.4	142.5	144.4	146.3	147.5	151.3

Source: Bureau of Business and Economic Research, College of Business Administration, Arizona State University, 1981.

(Endnotes continued from page 9)

Metropolitan Phoenix CPI were modified beginning in 1979 to conform with the BLS revisions; therefore, separate indexes for some expenditure categories are not available prior to 1979.

[4]For a more detailed discussion of the controversy concerning the use of the CPI, see *Ibid*.

[5]The relative importance weight associated with each expenditure category is based upon the expenditure patterns of urban households in the western region of the United States compiled from information collected by the BLS in a 1972-1973 household expenditure survey. Since not all expenditure subcategories are shown, the sum of the weights presented will not add to 100.0 percent.

[6]John A. Cochran, "National Economic Outlook for 1981: A Year Of Transition," *Arizona Business*, December, 1980, p. 3.

[7]Richard D. Winkleman, "The Arizona Economic Scene: Expectations for 1981," *Arizona Business*, December, 1980, p. 10.

[8]"The Year Should Improve With Age," *Business Week*, December 29, 1980, pp. 72-74; "Inflation in '81: Prospect is Still Glum," *U. S. News and World Report*, January 5, 1981, pp. 55-58; "A Pause Before Real Expansion Begins," *Fortune*, January 12, 1981, pp. 7-12; Data Resources, Inc., *U. S. Forecast Summary*, February, 1981.

[9]*Business Week*, p. 74.

[10]The assistance of the Bureau's Research Specialist Tom Rex and of Susan Baerst, Maria Hesse, Lori Lieberman, Chris Lockwood, Ellen Montanari, James Robertson, Jo Stimson, Cynthia Weigand, and Carol Zimmerman in the compilation of the CPI during 1980 and the preparation of this article is acknowledged with appreciation.

METROPOLITAN PHOENIX CONSUMER PRICE INDEX
1969 THROUGH 1980 (Continued)
(1969 = 100)

1977				1978				1979				1980			
I	*II*	*III*	*IV*	*I*	*II*	*III*	*IV*	*I*	*II*	*III*	*IV*	*I*	*II*	*III*	*IV*
150.2	153.7	157.1	159.9	163.6	168.6	173.4	178.3	184.0	193.7	199.0	206.5	220.7	220.9	226.6	234.0
—	—	—	—	—	—	—	—	183.4	189.6	192.3	195.9	202.3	207.1	213.9	220.0
155.1	159.3	164.4	165.3	169.7	178.8	181.9	183.9	187.1	193.8	196.3	200.2	206.7	211.6	218.5	225.0
160.1	163.9	169.4	170.3	175.5	186.7	190.1	192.5	199.6	204.7	206.9	212.2	216.4	221.2	228.6	235.7
155.1	157.9	168.1	169.6	174.1	181.3	184.6	187.0	190.5	190.9	199.1	205.8	212.1	219.4	222.9	227.4
154.2	155.0	162.4	163.9	174.0	194.7	201.2	202.3	211.3	223.7	213.3	213.3	218.3	215.5	224.8	233.5
147.3	149.3	152.4	153.6	154.5	157.7	160.1	169.0	176.9	180.4	185.8	193.1	195.3	199.1	202.4	210.2
161.4	163.6	159.2	163.8	168.8	188.6	191.0	188.0	193.6	193.7	202.0	205.6	202.1	213.3	226.6	231.2
180.9	193.1	202.0	198.5	199.5	197.7	197.6	201.8	209.8	213.1	220.2	230.2	237.8	246.6	252.4	259.7
140.8	145.9	150.0	150.8	153.0	156.0	158.2	159.2	162.0	171.9	175.0	176.0	187.1	192.3	198.1	203.4
—	—	—	—	—	—	—	—	133.5	134.3	139.4	139.1	144.2	147.6	153.1	154.1
140.0	143.8	146.5	149.1	153.5	157.1	164.6	170.7	178.2	191.5	197.1	207.0	224.8	222.6	228.2	236.9
134.2	138.4	139.9	142.8	147.8	151.5	160.7	169.0	177.3	195.5	200.9	213.6	237.5	230.5	237.4	251.0
132.1	133.5	135.9	139.2	143.4	142.8	146.2	148.9	159.8	161.3	165.4	170.2	172.3	175.7	177.5	178.3
128.5	133.6	134.7	137.3	142.3	147.8	159.2	169.8	177.1	199.3	204.9	219.7	249.5	239.2	247.4	264.8
191.8	193.3	206.8	205.6	203.9	207.7	208.8	196.8	204.8	203.7	221.1	223.7	225.9	245.7	252.0	236.8
150.0	152.7	157.0	159.4	163.6	166.7	167.8	170.6	175.0	176.7	176.6	179.9	184.9	187.0	187.9	191.7
142.0	145.4	147.2	150.6	151.6	155.6	158.8	164.0	166.2	168.5	172.2	169.4	170.2	170.2	172.9	174.5
—	—	—	—	—	—	—	—	162.7	163.2	167.6	165.4	164.2	163.9	164.3	164.1
124.7	129.0	133.8	135.4	141.2	143.2	141.3	144.0	145.3	145.9	142.2	145.3	150.0	148.7	150.9	150.6
145.7	149.1	149.5	154.9	151.0	155.8	164.5	168.7	167.7	162.9	173.3	165.4	158.7	157.1	163.1	159.4
163.2	168.4	172.1	171.7	175.4	181.5	177.4	187.5	187.2	202.4	211.8	210.7	209.0	215.8	190.7	201.4
159.5	162.0	170.1	174.0	174.4	182.4	185.0	188.0	190.3	199.3	208.1	219.6	238.7	238.0	242.6	248.4
159.7	162.3	170.4	174.2	174.4	182.6	185.2	188.3	190.6	199.6	207.8	218.7	238.6	237.3	240.9	245.4
155.0	156.3	163.4	172.5	177.7	178.5	179.8	181.9	184.7	193.1	212.5	233.4	238.0	248.9	270.0	299.6
215.3	219.6	220.8	223.7	233.0	237.2	239.2	248.3	254.5	259.7	267.3	285.0	295.1	299.0	310.4	317.3
142.9	145.2	145.8	147.8	153.7	155.0	156.3	163.1	165.1	167.2	170.9	167.6	182.3	183.4	189.1	202.2
—	—	—	—	—	—	—	—	197.0	202.8	204.1	202.1	209.9	213.4	218.4	226.2
154.4	159.7	158.8	162.8	169.8	174.9	178.5	183.7	186.3	197.6	196.1	198.8	209.3	210.3	216.1	222.2

1980: A Moderating Year for Food Prices

TIMOTHY D. HOGAN
ELLEN ORTON MONTANARI

Retail prices for food in the Phoenix area increased 9.5 percent in 1980, slowing from a rise of 10.6 percent in 1979 and a 12.2 percent increase in 1978. The 9.5 percent increase in food prices was much less than the 15 percent annual increase for consumer prices in general as recorded by the Metropolitan Phoenix Consumer Price Index (CPI) in 1980. In fact, higher retail food prices contributed less than one-fourteenth of the total increase in consumer prices during the past year. Unlike 1979, however, the 1980 rate of increase in food prices for the Phoenix area was higher than the 8 percent rise for the nation as a whole.

The next section details the pattern of food price changes in the Phoenix area during 1980. The third section discusses the factors that led to those changes, and the fourth section compares the 1980 Phoenix experience with that of Chicago, Los Angeles, and the United States as a whole. The final section discusses the outlook for retail food prices during 1981.[1]

Although food prices increased 9.5 percent in the Phoenix metropolitan area during 1980, this rate is lower than the overall rate of inflation and also lower than the 1979 increase. The food price survey is compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University. Cosponsor of the study is Valley National Bank.

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A REVIEW OF 1980

In 1980, the average food price index for Maricopa County rose to 241.7 — an increase of 21 points over the 1979 average index of 220.7. This index is calculated on the basis of a fixed bag of groceries that is priced monthly. These groceries, which on the average cost consumers $10.00 in 1967, cost them $22.07 in 1979 and climbed to $24.17 in 1980. This does not necessarily mean, however, that consumers in Maricopa County paid 9.5 percent more for all their groceries in 1980. Shoppers traditionally substitute lower priced items when prices rise for items they usually purchase. Since the food price index uses a fixed shopping list, those lower priced substitutions may not be on that fixed list and thus may not be reflected in the index.

Price increases in all five basic food categories — *Cereals and Bakery Products; Meats, Poultry, Fish, and Eggs; Dairy Products; Fruits and Vegetables;* and *Other Foods* — contributed to the overall 9.5 percent increase. The monthly changes in each category during 1980 are shown in Table 1 and are graphically depicted in Figure I. In addition, Table 2 shows the various subcategories of each of these basic categories and their average percentage changes between 1979 and 1980. It is important to note that the index values shown in this table use a base period of December, 1978 and therefore cannot be compared to any table using a base year of 1967.

Both *Other Foods* and *Cereals and Bakery Products* showed dramatic increases last year, rising 14.1 percent

TABLE 1

1980 MONTHLY INDEX OF PERCENTAGE CHANGES
IN MARICOPA COUNTY FOOD PRICES
(1967 Average = 100)

	TOTAL FOOD CONSUMED AT HOME		*CEREALS AND BAKERY PRODUCTS*		*MEATS, POULTRY, FISH AND EGGS*		*DAIRY PRODUCTS*		*FRUITS AND VEGETABLES*		*OTHER FOODS*	
	Index	*% Change From Previous Month*	*Index*	*% Change From Previous Month*	*Index*	*% Change From Previous Month*	*Index*	*% Change From Previous Month*	*Index*	*% Change From Previous Month*	*Index*	*% Change From Previous Month*
January, 1980	231.7	+0.2	217.1	+0.4	245.6	+1.0	204.1	−0.4	213.4	−2.3	252.1	+0.9
February, 1980	230.4	−0.6	220.3	+1.5	241.9	−1.5	205.6	+0.7	200.6	−6.0	256.5	+1.7
March, 1980	233.8	+1.5	224.4	+1.8	246.1	+1.7	206.3	+0.3	201.8	+0.6	261.9	+2.1
April, 1980	235.6	+0.8	227.7	+1.5	244.4	−0.7	207.0	+0.3	210.7	+4.4	262.8	+0.3
May, 1980	237.8	+0.9	227.7	0.0	239.0	−2.2	210.6	+1.7	221.5	+5.1	268.2	+2.1
June, 1980	237.9	0.0	229.1	+0.6	240.8	+0.7	210.3	−0.2	217.8	−1.6	268.0	−0.1
July, 1980	241.0	+1.3	230.3	+0.5	244.0	+1.3	213.0	+1.3	225.0	+3.3	269.4	+0.5
August, 1980	244.7	+1.6	233.5	+1.4	253.0	+3.7	211.4	−0.8	225.9	+0.4	272.6	+1.2
September, 1980	249.5	+1.9	231.7	−0.8	258.3	+2.1	213.7	+1.1	239.8	+6.2	275.7	+1.1
October, 1980	250.2	+0.3	234.6	+1.3	258.3	0.0	217.1	+1.6	236.6	−1.4	276.8	+0.4
November, 1980	252.2	+0.8	237.3	+1.1	261.6	+1.3	220.0	+1.3	231.2	−2.3	281.0	+1.5
December, 1980	255.6	+1.4	237.7	+0.2	264.6	+1.2	225.5	+2.5	236.9	+2.5	283.6	+0.9

Source: Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

and 12.2 percent respectively. Price hikes for nonalcoholic beverages and sugar and other sweets contributed to the gain in *Other Foods*, while almost all prices rose in *Cereals and Bakery Products*.

Fruits and Vegetables rose an average of 9.9 percent during 1980, despite a 1.4 percent drop in prices for fresh fruits. An increase of 24.4 percent for fresh vegetables, however, more than offset that decrease. The index values for *Dairy Products* also continued to climb last year, showing a 9.7 percent hike over 1979 values. Price increases in all subcategories of *Dairy Products* were responsible for the gain.

After climbing 13.8 percent in 1979, prices for *Meats, Poultry, Fish, and Eggs* rose a modest 3.5 percent in 1980. Pork prices actually fell 0.6 percent, while beef prices edged up 4.7 percent. The largest increases in this category were noted for fish and seafood, up by an average of 8.1 percent.

Examination of Table 1 or Figure 1 also demonstrates that the seasonal pattern normally demonstrated by Phoenix food prices — big increases in the first half of the year followed by smaller rises in the last six months — was not followed during 1980. The *Total Food at Home* index rose a modest 2.9 percent during the first six months, but jumped 7.4 percent during the July-December period.

FACTORS LEADING TO THE 1980 EXPERIENCE

The total amount spent by households to purchase food for consumption at home is comprised of three major components: The farm value of domestically produced foods; marketing costs; and the costs of foods not produced on domestic farms, primarily fish and imported foods. Higher processing and distribution costs (the marketing component) in 1980 accounted for most of the increase in retail food prices.

Prices received by farmers rose very slowly during the first half of the year. Good growing conditions in much of the nation during the 1978-1979 crop year led to larger than normal production, which together with ample stocks of most farm food commodities, kept increases in the farm value of food small. Unfortunately, farm prices for many commodities rose sharply during the second half of the year, resulting in the atypical seasonal pattern of price increases in 1980.

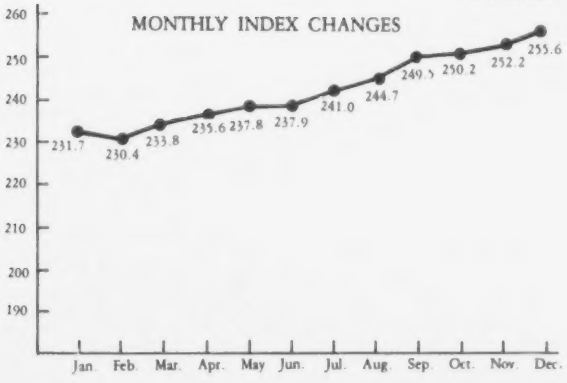
Grain prices rose sharply during the second half of 1980. Food grain prices in November were 21 percent higher than a year earlier and 24 percent higher than prices during the January-June, 1980, period. Farm prices for meats, poultry, and eggs also increased substantially during the second half of the year, primarily as a result of production cutbacks by farmers in response to low prices they received earlier in the year. Poultry and egg prices received by farmers in November, 1980, were 27 percent above the average level of prices during the six months of the year and 15 percent higher than November, 1979, prices.

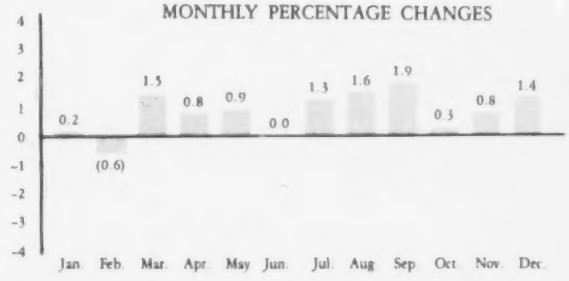
Retail prices of fresh and processed fruits were one of the bright spots during 1980, primarily as a result of substantially lower farm fruit prices — down 14 percent compared with 1979. Farm-level vegetable prices, on

FIGURE I

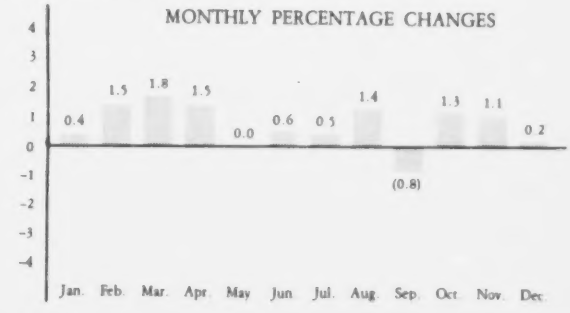
INDEX OF FOOD AT HOME COSTS:
MONTHLY CHANGES IN MARICOPA COUNTY, 1980
(Average 1967 = 100)

TOTAL FOOD AT HOME

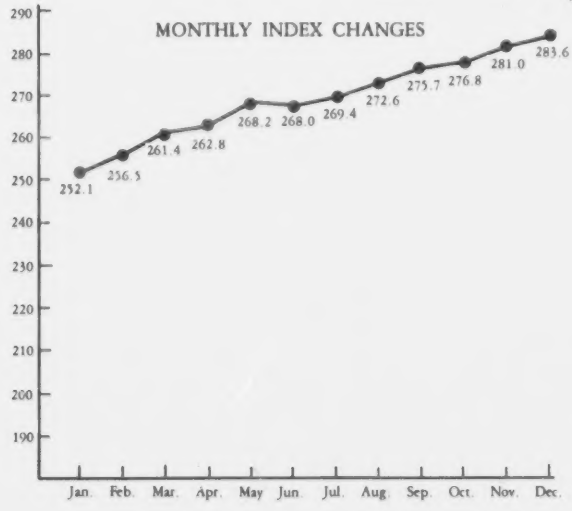




CEREALS AND BAKERY PRODUCTS



OTHER FOODS



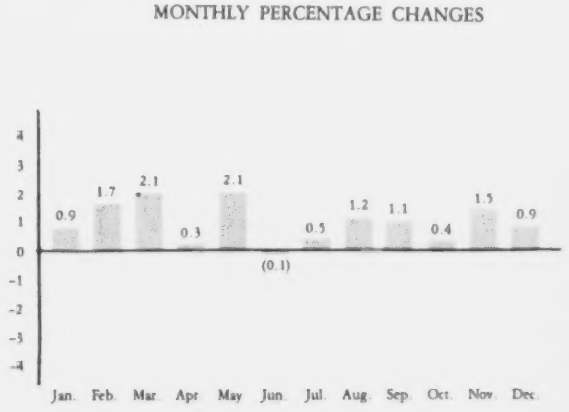
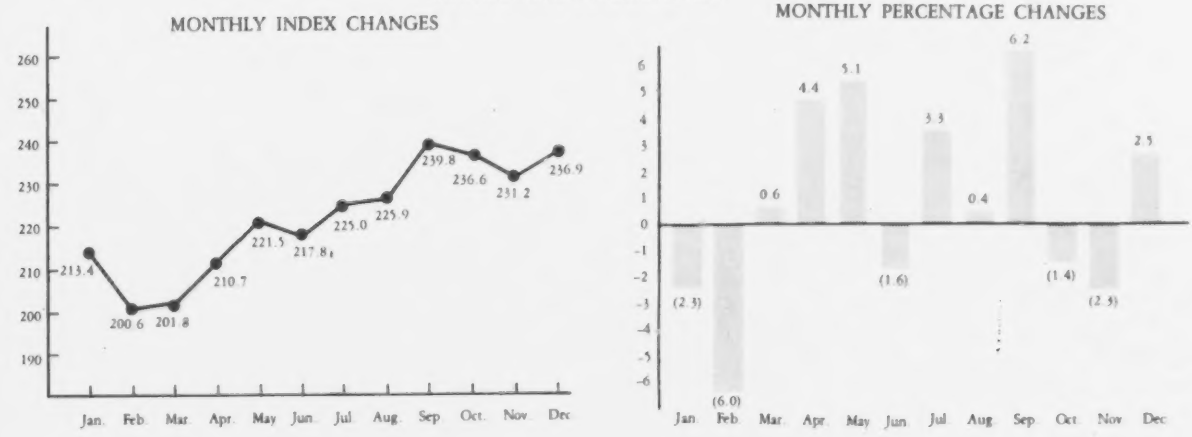
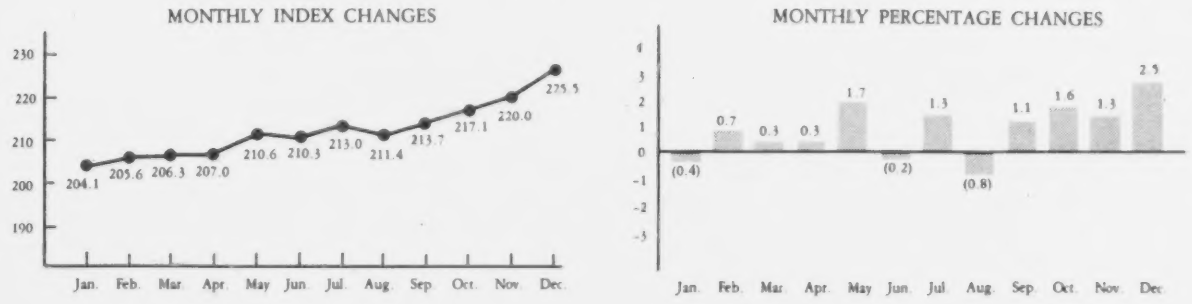


FIGURE I (Continued)
INDEX OF FOOD AT HOME COSTS:
MONTHLY CHANGES IN MARICOPA COUNTY, 1980
(Average 1967 = 100)

FRUITS AND VEGETABLES



DAIRY PRODUCTS



MEATS, POULTRY, FISH, AND EGGS

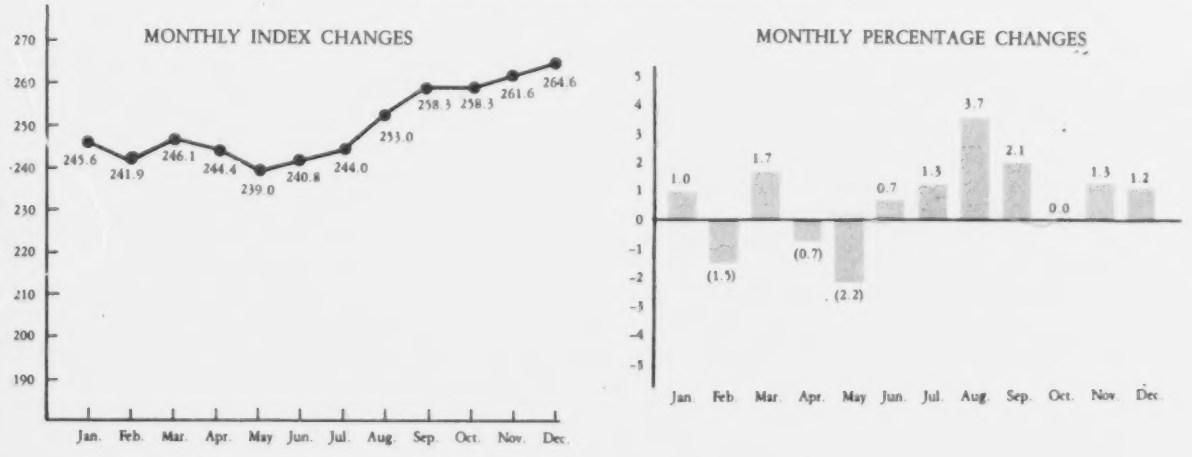


TABLE 2

FOOD PRICE CHANGES: 1979-1980
MARICOPA COUNTY
(December, 1978 = 100[a])

	Index Averages		*Percent*
	1979	*1980*	*Change*
Total Food Consumed at Home	—	—	9.5
Cereals and Bakery Products			
Cereal and Cereal Products	103.3	116.9	13.1
Bakery Products	105.5	117.9	11.8
Meats, Poultry, Fish, and Eggs			
Beef	115.1	120.6	4.7
Pork	98.9	98.3	-.6
Other Meats	108.4	109.4	1.0
Poultry	104.7	108.5	3.6
Fish and Seafood	106.1	114.7	8.1
Eggs	105.2	107.7	2.4
Dairy Products			
Fresh Milk and Cream	108.2	117.0	8.1
Other Dairy Products	107.9	120.6	11.8
Fruits and Vegetables			
Fresh Fruits	107.4	106.0	-1.4
Fresh Vegetables	107.6	133.8	24.4
Processed Fruits	103.8	107.9	4.0
Processed Vegetables	103.7	110.0	6.0
Other Foods			
Sugar and Other Sweets	105.1	124.7	18.6
Fats and Oils	102.3	109.9	7.2
Nonalcoholic Beverages	105.4	122.5	16.2
Misc. Prepared Foods	105.8	117.8	11.4

[a]Detailed indexes for subgroups were not computed prior to December, 1978; therefore these index values are not comparable with index figures for main food groups as shown in Tables 1 and 3, which have a 1967 base.

Source: Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

the other hand, rose significantly during the July-December period in response to reduced production during the 1980 crop year. Acreage in production declined about 12 percent and the raw tonnage of vegetable crops in the last crop year dropped about 15 percent below 1979 totals.

Reflecting tightening conditions in the world sugar market, the farm price of sugar increased dramatically in 1980 — to an average of 37-38 cents per pound from a price of 25 cents per pound in 1979. This rise in a key ingredient in many food products (cereals and bakery items, ice cream, sweets, soft drinks, and many other processed foods) was a significant factor in higher retail food prices during the past year.[2]

Food marketing costs, which comprise about two-thirds of the retail price of domestically produced foods, rose 11 percent in 1980, compared with a 12 percent increase in 1979. Labor costs, the largest component of marketing costs, (comprising about 46 percent of the total) rose 10 percent in 1980 — about the same magnitude of increase experienced in 1979. Packing costs (12 percent of the total) jumped 16 percent in 1980 compared with a 13 percent rise in 1979. Most of the increase occurred in the first half of the year reflecting sharply higher input prices for paper and paperboard products and for plastic products. Transportation accounts for about 8 percent of total market costs, and due to the effects of higher shipping rates preliminary estimates show transportation costs up 15 percent during 1980. As food marketing costs rose last year, the ratio of profits to sales for food processing, distribution, and marketing firms fell compared with 1979. A combination of higher input prices and a squeeze in the farm-to-retail price spread during the second half of the year (due to rapidly increasing farm-level food prices) hurt the profitability of food marketing firms in 1980.[3]

Coffee, sugar, bananas, and fish comprise the four major food commodities in the fish and imported foods category. Although purchases of foods in this category account for less than one-fifth of total retail food expenditures, many of the commodities are subject to wide price swings, and recent history has shown that these products can have significant impacts upon retail food prices. Prices of these imported foods rose at double-digit rates during the first half of 1980 — primarily the previously mentioned sharp rise in world sugar prices. These price increases were moderated somewhat in the second half of the year by falling coffee prices.[4]

COMPARISON OF MARICOPA COUNTY WITH OTHER AREAS

A comparison of the average food price changes in Maricopa County with those experienced in the United States and various metropolitan areas is helpful in assessing the impact of the increase in Maricopa County. The food price indexes for the United States, the Los Angeles area, and the Chicago area are presented in Table 3 and are useful in making comparisons concerning the rates of change between areas. However, they may not be used to compare the absolute price levels because the indexes in each city were set at 100.0

TABLE 3

1980 PERCENTAGE CHANGES IN FOOD PRICE INDEXES FOR MARICOPA COUNTY, THE UNITED STATES, AND SELECTED METROPOLITAN AREAS
(1967 Average = 100)

Location	*Total Food Consumed At Home*	*Cereals and Bakery Products*	*Meats, Poultry, Fish, and Eggs*	*Dairy Products*	*Fruits and Vegetables*	*Other Foods*
Maricopa County						
Average 1980 Index	241.7	229.3	249.8	212.1	221.8	269.1
Average 1979 Index	220.7	204.4	241.3	193.4	201.9	235.8
1980 Percentage Change	+9.5	+12.2	+3.5	+9.7	+9.9	+14.1
United States						
Average 1980 Index	251.5	246.4	242.2	227.4	246.7	301.9
Average 1979 Index	232.9	220.1	234.2	207.1	230.0	269.6
1980 Percentage Change	+8.0	+11.9	+3.4	+9.8	+7.3	+12.0
Los Angeles[a]						
Average 1980 Index	250.1	253.9	243.1	220.6	236.8	298.5
Average 1979 Index	229.4	222.9	236.3	191.9	220.5	263.9
1980 Percentage Change	+9.0	+13.9	+2.9	+15.0	+7.4	+13.1
Chicago[b]						
Average 1980 Index	253.5	253.4	248.7	221.8	250.6	304.6
Average 1979 Index	234.9	222.9	239.4	204.9	235.5	273.2
1980 Percentage Change	+7.9	+13.7	+3.9	+8.2	+6.4	+11.5

[a]Los Angeles-Long Beach SMSA
[b]Chicago-Northwestern Indiana SMSA

Sources: Compiled from data published in *Arizona Business*, Bureau of Business and Economic Research, College of Business Administration, Arizona State University; and U.S. Department of Labor, Bureau of Labor Statistics, The Consumer Price Index.

in 1967; absolute food costs across the country were not necessarily equal at the time.

Average food prices in 1980 across the nation rose 8.0 percent according to the United States index, which is based upon prices in eighty-five representative urban areas. In comparison, prices in Maricopa County rose at the faster rate of 9.5 percent. Furthermore, Maricopa County does not fare well when compared to Los Angeles, where prices rose by an average of 9.0 percent, or when compared to the Chicago area, where prices rose 7.9 percent during 1980.

An examination of the price increases for the five major food groups does not produce a clear pattern when the Phoenix area statistics are compared with the other areas. For example, the percentage increase in *Cereals and Bakery Products* for the Phoenix area was slightly larger than that of the United States as a whole but smaller than the increase in the two reference cities. In general, however, it appears that the price experience for the five food groups was consistent with the pattern observed for the overall index — the rate of inflation for retail food prices in the Phoenix area was somewhat higher than that experienced in the nation as a whole and in the Chicago area but about equal with food price increases in the Los Angeles area.

THE OUTLOOK

It is not likely that retail food prices in 1981 will continue to moderate the rate of inflation experienced by other categories of consumer expenditures. Because of expected big increases in farm food prices, U.S. Department of Agriculture (USDA) economists predict that food prices will increase 10 to 15 percent during 1981.[3] All major food groups are expected to experience significant price increases, but the primary source of inflation is predicted to come from big jumps in the prices of meats, poultry, and eggs.

Prices paid to farmers are forecast to rise 12 to 20 percent above the low prices received by producers for many food commodities during 1980. Reduced meat supplies could produce record high cattle prices by the

second quarter of 1981. As consumers substitute more poultry and eggs in response to higher meat prices, the increased demand will also lead to substantial price increases for these foods. Most fruit prices are forecast to rise only moderately during 1981, but smaller supplies of many vegetables are predicted to result in bigger price increases this year than in 1980. Drought-damaged yields and reduced acreage resulted in lower production of the major oilseeds (soybeans, peanuts, cottonseed, sunflower), which will lead retail prices of fats and oils to rise more sharply in 1981 following the relatively modest increases of 1980. Sugar prices are also expected to show another substantial rise, since world sugar production is expected to be less than consumption for the second consecutive year.[6] The large farm price increases will, of course, lead to significant jumps in the retail prices of these commodities and related processed goods. For example, processed fruit and vegetable prices are likely to rise faster in 1981 than in 1980, and higher sugar prices will raise prices of sweets, soft drinks, cereals, and some bakery products.

Most other food prices will increase in line with the general inflation rate — primarily affected by higher food marketing costs. Overall, such marketing costs are forecast by USDA economists to rise 9 to 11 percent in 1981. Labor costs are expected to increase more rapidly this year due partly to higher Social Security taxes and a jump in the minimum wage rate from $3.10 to $3.35 in January. However, packaging, transport, and other costs are predicted to rise more slowly than the big increases that occurred in 1980.[7]

The food price experience in January and February of 1981 has been consistent with the USDA forecasts. Retail food prices in the Phoenix area have increased at a 12 percent annual rate during the first two months of the year. The overall inflation rate is predicted to decline from record levels in 1980, and the hope is that good crop conditions during 1981 will moderate the current spurt in food prices so that the annual rate of increase in retail food prices will remain below 10 percent again in 1981.

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[1]An explanation of food price index calculation that can be found in Jerry L. Kingston, "Maricopa County Food Costs: The 1970 Record," *Arizona Business Bulletin* 18, (April, 1971), p. 8. For a discussion of the revisions to this methodology incorporated into the index in January, 1979, see Timothy D. Hogan, "The 1979 Consumer Price Index: Its Background and Significance." *Arizona Business*, 27 (March, 1980), p. 5.

[2]U.S. Department of Agriculture, *Agricultural Outlook*, December, 1980, pp. 5-10.

[3]U.S. Department of Agriculture, *Agricultural Outlook*, November, 1980, pp. 14-15.

[4]U.S. Department of Agriculture, *National Food Review*, Fall, 1980, pp. 4-6.

[5]U.S. Department of Agriculture, *Agricultural Outlook*, December, 1980, p. 12.

[6]Ibid, pp. 12-14.

[7]U.S. Department of Agriculture, *National Food Review*, Fall, 1980, pp. 4-6.

[8]The assistance of the Bureau's Research Specialist Tom Rex and of Clifford Armstrong, Susan Baerst, Maria Hesse, David Jones, Lori Lieberman, Chris Lockwood, James Robertson, Cynthia Weigand, and Carol Zimmerman in the compilation of the Food Price Index during 1980 is acknowledged with appreciation.

Construction Activity in Transition: 1980

JAY Q. BUTLER

If one term could describe construction activity in Arizona for 1980, the term would be "volatile." Although the residential sector continued downward during the year, the commercial and industrial posted relatively strong levels of activity. (See the 1980 year-end Report on pages 24-26.)

The Arizona construction industry is beginning 1981 on a soft and uncertain note with several problems still unresolved. Continued high interest rates and inflation stifle any real and continuing strength in the Arizona construction industry. While recovery is expected eventually, the 1981 market will likely be slow early in the year but should improve toward the latter half of the year. This pattern is based on the expectation of decreasing interest rates and an improving economy.

SECTORAL CHANGES

Total construction activity reported in Arizona was 86,101 permits valued at $2.39 billion. This level of activity represents a 20 percent decrease from the 107,243 permits of 1979 and a 9 percent decline in dollar value from the $2.62 billion of the preceding year. In Maricopa County, total reported permits declined 22 percent (59,963 to 46,392 permits) with an 8 percent decline in dollar value ($1.62 billion to $1.49 billion). Because residential construction represents a permit of relatively low value, its decline is reflected more in the dramatic drop in number of recorded permits than in total dollar value, which was supported by continued commercial and industrial activity and thus showed a less significant decrease.

Table 1 provides a perspective on construction activity by counties for 1979 and 1980. Only Yuma County reported any increase in residential activity. Three counties — Gila, Navajo, and Pima — reported increases in commercial activity. The major area of improvement was the industrial sector with reported increases in Gila, Maricopa, Yavapai, and Yuma counties. Due largely to the decline in residential construction activity, only Coconino, Gila, Greenlee and Yavapai reported increases in total construction activity. Even these increases were not significant because they were due largely to a single project such as the $21.2 million water treatment plant in Flagstaff.

The balance of activity in Maricopa County remained similar to 1979 with 54 percent of the state's total recorded permits and 62 percent of total reported dollar value in Arizona. Pima County accounted for 20 percent of the total issued permits and 19 percent of recorded dollar value. In combination, the two metro-

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Construction Activity during 1980 was highlighted by a surge in industrial permits, but a dramatic decline in the residential sector.

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TABLE 1

ARIZONA BUILDING PERMIT ACTIVITY: 1979 and 1980

	RESIDENTIAL*		COMMERCIAL		INDUSTRIAL		OTHER		TOTAL	
	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value
APACHE COUNTY 1980	141	2,235,273	14	1,179,390	1	100,000	12	173,800	168	3,688,463
1979	202	3,462,363	23	819,800	1	89,000	16	208,625	242	4,579,788
Percent Change	-30	-35	-39	44	—	12	-25	-17	-31	-19
COCHISE COUNTY 1980	1,356	26,433,150	59	3,379,566	5	151,790	1,216	3,384,670	2,638	33,349,176
1979	1,868	31,660,041	68	6,441,208	8	743,600	1,139	6,030,827	3,083	44,875,676
Percent Change	-27	-17	-13	-48	-38	-80	7	-44	-15	-26
COCONINO COUNTY 1980	1,795	38,588,425	113	11,410,356	7	350,992	485	25,368,318	2,400	75,718,091
1979	1,530	39,568,341	170	21,301,184	7	810,875	471	4,334,070	2,178	66,014,470
Percent Change	17	-3	-34	-46	—	-57	3	472	10	15
GILA COUNTY 1980	848	10,961,401	49	3,030,669	4	406,243	260	4,541,738	1,161	18,940,051
1979	993	12,321,936	35	1,316,185	1	25,000	326	2,360,543	1,355	16,023,664
Percent Change	-15	-11	40	130	300	1,524	-20	92	-14	18
GRAHAM COUNTY 1980	468	6,877,090	42	4,328,157	3	156,000	55	3,232,772	568	14,594,019
1979	545	6,827,806	46	3,381,309	—	—	100	1,521,914	642	14,672,605
Percent Change	-15	1	-9	28	—	—	-45	112	-12	-1
GREENLEE COUNTY 1980	22	533,750	—	—	1	10,000	3	1,500	26	545,250
1979	19	399,672	2	23,000	—	—	3	105,002	24	527,674
Percent Change	16	33	—	—	—	—	—	-98	8	3
MARICOPA COUNTY 1980	24,008	559,381,766	2,066	485,939,949	560	159,706,038	19,753	284,095,021	46,387	1,489,122,774
1979	32,900	751,562,454	2,207	464,555,779	512	128,181,526	24,254	279,252,629	59,963	1,623,552,388
Percent Change	-27	-26	-6	5	9	25	-19	2	-23	-8
MOHAVE COUNTY 1980	4,119	57,735,974	253	18,757,287	4	823,786	2,259	4,725,372	6,635	82,042,419
1979	6,964	71,917,203	227	21,580,675	2	211,536	752	3,134,167	7,945	96,843,581
Percent Change	-41	-20	11	-13	100	289	200	51	-16	-15
NAVAJO COUNTY 1980	1,058	18,002,953	61	3,326,801	7	39,584	95	1,998,807	1,221	23,368,145
1979	1,243	23,591,870	72	2,265,449	—	—	608	265,197	1,923	26,122,516
Percent Change	-15	-24	-15	47	—	—	-84	654	-36	-10
PIMA COUNTY 1980	10,517	227,856,558	579	194,668,416	11	3,739,146	5,604	52,752,429	16,711	479,016,549
1979	15,732	271,010,555	558	172,664,523	28	43,488,616	4,646	66,158,396	20,964	553,322,090
Percent Change	-33	-16	4	13	-61	-91	21	-21	-20	-13
PINAL COUNTY 1980	1,211	14,357,491	59	2,613,287	7	2,367,500	511	4,157,000	1,788	23,495,278
1979	1,470	15,204,181	69	3,342,475	5	2,978,528	535	1,898,504	2,079	23,423,688
Percent Change	-18	-6	-14	-22	40	-21	-5	118	-14	—
SANTA CRUZ COUNTY 1980	165	6,571,519	3	142,196	1	725,000	38	624,786	207	8,063,501
1979	290	9,026,253	8	237,500	4	825,000	67	535,481	369	10,624,234
Percent Change	-43	-27	-63	-40	-75	-12	-43	17	-44	-24
YAVAPI COUNTY 1980	2,629	53,925,349	154	10,923,956	18	15,317,220	926	7,140,131	3,727	87,306,656
1979	2,863	59,657,339	111	15,710,112	14	413,440	875	3,646,792	3,863	79,427,683
Percent Change	-8	-10	38	-30	29	3,604	6	96	-4	9
YUMA COUNTY 1980	1,946	34,333,747	99	10,680,550	7	1,774,434	419	6,210,533	2,471	52,999,624
1979	1,870	32,714,288	111	12,587,720	19	677,390	607	14,922,931	2,607	60,902,329
Percent Change	4	5	-11	-15	-63	162	-31	-58	-5	-13

* Includes mobile homes.

Source: Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

politan counties represented 73 percent of the reported permit activity and 82 percent of the recorded dollar value. While the percentages have remained constant for several years, Table 1 shows that commercial and industrial development is occurring and even increasing in the other counties, which is important for the balanced economic development of Arizona.

Residential

Like 1979, much of the reported decline occurred in the residential sector. For the entire state of Arizona, 50,278 residential permits were recorded in 1980, representing a 27 percent decline from the 68,579 permits of 1979. A 20 percent decrease occurred in the dollar value of residential construction activity ($1.33 billion to $1.06 billion). In 1978, 60 percent of residential permits were issued for single-family units, but this percentage declined to 57 percent in 1979 and 53 percent in 1980. This trend represents increased remodeling activity in response to higher new home costs. Thus, new home construction (including mobile homes) reported a 33 percent decrease from 44,542 permits to 30,050 permits.

In Maricopa County, the residential downturn continued with the 14,879 single-family permits representing a 38 percent decline from the 24,128 permits of 1980. Total residential permit activity in the county was down 27 percent (32,990 to 24,008 permits) while dollar value was down 26 percent ($751.6 million to $559.4 million).

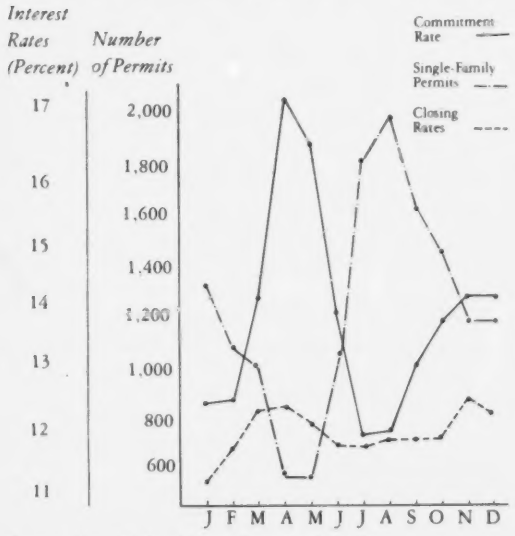
In the boom year of 1978, residential activity represented 62 percent of all recorded permits in Maricopa County while in 1980 this percentage had declined to 51 percent, which was typical of previous years' activity. Because Maricopa County is growing, residential construction will be the dominant sector. However, construction activity needs to be evenly balanced to fully serve the economic development of Maricopa County.

Several factors have been identified that have adversely affected the new home construction area including inflation, high interest rates, increasing new

home prices, and eroding consumer confidence. Not only were interest rates high during 1980, they were also very volatile. This combination of volatility and high interest rates created a great deal of uncertainty and lack of market activity.

Figure I shows the relationship between new home construction activity in Maricopa County and interest rates for conventional mortgages. The interest rates were derived from the monthly survey conducted by the Federal Home Loan Bank Board and represent the contract rate (interest rates on mortgages closed during the period) and the commitment rate (a future rate based on a 25 year 75 percent loan-to-price mortgage). Because construction activity increased in response to declining interest rates, Figure I tends to confirm the common expectation that housing activity will surge when interest rates decline and hold steady around the 12 percent level.

FIGURE I
1980 SINGLE FAMILY CONSTRUCTION AND INTEREST RATES, MARICOPA COUNTY



Source: News, Federal Home Loan Bank Board.

Commercial

While the residential sector continued to decline, the commercial sector basically held its own in the face of high interest rates and a weakening economy. In Maricopa County, the number of permits declined 6 percent (2,207 to 2,066) while dollar value increased 4 percent ($464.6 million to $485.9 million).

Due to the dominance of the residential sector, commercial activity in Maricopa County tends to decrease when residential activity is extensive. This is due to a limited supply of labor and materials which are siphoned off by residential development. As an example, there were 18,013 residential permits and 2,232 commercial permits in 1975; but, in 1978, when the number of residential permits had increased to 41,032 permits, the commercial sector declined to 1,925 permits.

Furthermore, the number of apartment permits (5 or more units) has declined to 387 permits from 515 permits in 1979. While the number of permits has been declining, the number of actual housing units per permit has been increasing from fourteen housing units per permit in 1971 (716 permits) to twenty-five housing units per permit (387 permits) in 1980. The decline in apartment development can be attributed to decreasing occupancy levels and stagnant rent levels while operating expenses have increased. Due to continued population growth and low levels of single-family construction, demand for apartment units could increase over the next few years. There is an increasing problem in whether the units can be profitably produced and operated. In response to this problem, development by larger firms has increased, prices on the purchase of existing units have increased, and condominium conversions continue to be a potential alternative.

The major growth areas in the commercial sector have been in office space and retail space because of increased demand, especially in Maricopa County, generated by growth in both the population and the economic base. Furthermore, the use of percentage leases or other forms of escalating leases that permit rent increases provide economic incentive to meet the demand.

In the rest of the state, commercial activity declined; a 1 percent decrease occurred in the number of issued permits (1,500 to 1,485 permits) and an 11 percent decrease in dollar value ($297.7 million to $264.4 million). Pima County had a 4 percent increase in issued permits (558 to 579) and an 11 percent increase in dollar value ($172.7 million to $194.7 million). As in Maricopa County, much of the increase can be attributed to office and retail space. Apache, Gila and Navajo counties also posted increases in commercial development, especially in the retail area.

Industrial

The highlight of the 1980 construction year was the industrial sector. In Maricopa County, industrial development set a record with 560 permits (a 9 percent increase from the 512 permits of 1979) valued at $159.7 million (a 25 percent increase from the $128.2 million

of 1979). Construction of warehousing, which traditionally has dominated the industrial sector, continued to be an important element. However, new manufacturing plants and plant additions have been increasing in number over the past few years, reflecting the changing industrial profile of the state. The main geographic areas of development have been Chandler, especially the Williams Field Road area; Phoenix, around the airport and the north area of the Black Canyon Freeway; and Tempe, around University Drive and the Maricopa Freeway area.

The fact that a single industrial project can have a significant impact on the building permit activity is illustrated by permit activity recorded for the rest of the state, which showed a decline with a 13 percent decrease in permit activity (89 to 76 permits) and a 48 percent downturn in dollar value ($50.3 million to $26.0 million). Much of this downturn can be attributed to the 91 percent ($43.5 million to $3.7 million) decrease in Pima County because in 1979, extensive development was shown for the IBM plant, which was not carried over to 1980.

As seen in Table 1, Apache, Gila, Mohave, Yavapai, and Yuma Counties all posted increases in the industrial sector. However, many of the increases were due to single projects such as a $10 million plant in Yavapai County. Most counties still do not have the economic base to sustain high levels of new industrial development.

Other

This sector includes development activity for such areas as public housing and buildings, fences, permit renewals, and swimming pools. It is very sensitive to governmental activity, which is very important in providing the support services for economic growth and jobs in a weakening construction market. Maricopa County showed a 19 percent decrease in issued permits (24,254 to 19,753 permits) and a 2 percent increase in dollar value ($279.3 million to $284.1 million). The increase in dollar value is largely due to a $14 million water treatment plant. For the rest of Arizona, the 11,883 permits represent a 17 percent increase from the 10,096 permits of 1979 and a 6 percent increase in dollar value ($108.1 million to $114.3 million). Again, the increase in dollar value can be attributed to a $21.2 million water treatment plant in Flagstaff.

OUTLOOK FOR 1981

While volatility was the keynote of 1980, inconsistency and uncertainty appear to be the theme of a transitional 1981 construction and real estate market. Members of the real estate industry have often confronted such uncertainty as they planned for the new year, but seldom has the future seemed so nebulous as the outlook for 1981. The past year will be remembered for rising interest rates, continuing inflation, and a recession but there is no definitive concept of what 1981 will be like for the real estate market. It is viewed primarily as a year of transition between the recession of 1979-1980 and the anticipated strength of 1982.

Experts still disagree about the prospects for 1981 because the recent statistical information is inconclusive and the final form and impact of the recently announced economic strategy of President Reagan's administration are unknown. While the national economy is expected to recover from the short recession of 1980, the recovery is expected to be slow throughout the first half of 1981. The concensus calls for an irregular decline in interest rates throughout 1981, a reflection of economic growth still being stifled by high inflation.

Not only were interest rates high during 1980, they were very volatile as shown in Figure 1. The prime interest rate changed forty-two times, fluctuating from a high of 20 percent down to 11.5 percent in the fall, and back up to 21½ percent at year end. The FHA/VA interest rate changed a record eight times during 1980.

Due to limited liquidity, consumers have been fairly cautious throughout the year and have spent most of their funds in reducing debt, not in creating additional debt. They also have seen prices rise as fast as income and they have experienced increased Social Security tax, which is taking additional household income. Due to these economic factors, consumer confidence and willingness to make major purchases have been declining. Thus, the consumer is expected to be very cautious until the economy is perceived as definitely improving. However, liquidity has been increasing and could boost the economy when interest rates decline enough to allow the consumer once again to borrow money.

The role of the federal government is still not definite. The Federal Reserve appears to be continuing its tough posture until a decrease is evident in the demand for funds or inflation rates. Some experts are concerned about possible conflict between increased Treasury borrowing and Federal Reserve credit curbs. The result of this conflict would be higher, not lower, interest rates.

The key to the future economic trend is precisely how much the new administration will be able to hold down federal spending and cut taxes. The recently announced economic program calls for both decreased federal spending, except in the area of defense, and tax

benefits that would include a tax cut and reduced useful life for new construction. If the program achieves its goal, the benefits of reduced inflation, increased capital availability, and liberalized depreciation rules would support a tremendous surge in construction activity.

While the future condition of the national economy is still largely unknown, the local economies of Arizona and Maricopa County are in fairly good shape. Unemployment is not expected to increase significantly and population and economic development is expected to continue. Because interest rates are expected to fall, the industry could experience considerable difficulty in supplying new projects, especially housing, for the new economic and population growth. This pent-up demand in all aspects of the market should provide a tremendous resurgence once interest rates decline and stabilize and the economy becomes stronger.

In the latter part of 1980, Phoenix Magazine Inc. and the Arizona Real Estate Institute surveyed members of three real estate industry groups: financial institutions (banks, savings and loan associations, and mortgage bankers), real estate firms (residential brokerage, commercial brokerage, and property management), and homebuilders. In addition, the general public was surveyed at shopping areas throughout the Valley.

The industry groups appear to be fairly optimistic concerning 1981. Over 60 percent of the respondents in the industry groups expect improvement in consumer confidence, in retail sales, and in the local and national economies. The general public, however, is more cautious concerning 1981 for they expect their household financial condition and the local and national economies to be much the same as they are now.

In response to expected changes in price levels, the industry respondents tended to agree that new home prices, resale home prices, and land prices will each increase 10 to 11 percent over the coming year. Homebuilders expect housing starts to be in the range of 20,000 to 24,999 units and 15,000 to 19,999 closings. Furthermore, the homebuilders foresee starts and closings increasing around 20 percent for their respective firms. The financial institution group and real estate group also expect a comparable increase in their area of activity. Overall, the industry groups foresee the 1981 market as being slow early in the year but improving toward the latter half of the year.

Table 2 presents the mode (most common) and mean (average) response for each of the surveyed groups relative to a selected set of economic indicators. The last column provides a consensus concerning the various indicators. It appears that all groups expect reasonable improvement but no dramatic changes.

The general expectation is that 1981 will be a year of recovery with interest rates declining to more acceptable levels, inflation decreasing, and construction activity increasing. Because of the expected slowdown and the impact of the new economic strategy, market activity should be weak during the first half of 1981 with stronger recovery during later quarters. The strengthening of the economy should be more evident in late 1981 and should sustain a strengthening real estate market in 1982.

TABLE 2

COMPARISON OF RESPONSES
FOR 1981 ECONOMIC INDICATORS
(Percentages)

Economic Indicators	*Public*		*Homebuilders*		*Financial*		*Real Estate*		*Consensus*	
	Mode	*Mean*	*Mode*	*Mean*	*Mode*	*Mean*	*Mode*	*Mean*	*Mode*	*Mean*
Conventional Mortgage Rate	12.0	13.1	13.0	12.8	12.0	12.3	12.0	12.7	12.0	12.9
FHA Mortgage Rate	12.0	12.0	12.0	11.9	11.5	11.6	11.5	11.9	12.0	11.9
Prime Interest Rate	15.0	13.8	12.0	12.1	10.0	10.8	12.0	12.5	12.0	12.5
Inflation Rate	10.0	11.4	10.0	11.2	10.0	9.6	10.0	11.2	10.0	11.2
Apartment Vacancy Rate	NA	NA	5.0	7.5	3.0	5.8	5.0	7.2	5.0	7.1
Commercial Interest Rate	NA	NA	14.0	13.6	12.0	12.4	14.0	14.0	14.0	13.6
Treasury Bill Rate	NA	NA	11.0	10.7	9.5	9.7	9.0	10.8	9.5	10.6

NA: Not asked; Mode = most common response; Mean = average response.

Source: Surveys conducted by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

Arizona Building Permits: Year-End Report

1980	RESIDENTIAL* Number of Permits	RESIDENTIAL* Dollar Value	COMMERCIAL Number of Permits	COMMERCIAL Dollar Value	INDUSTRIAL Number of Permits	INDUSTRIAL Dollar Value	OTHER Number of Permits	OTHER Dollar Value	TOTAL Number of Permits	TOTAL Dollar Value
APACHE COUNTY	141	2,239,273	14	1,179,390	1	100,000	12	173,800	168	3,688,463
Eagar	30	1,095,200	3	1,067,000	1	100,000	2	101,000	36	2,363,200
St. Johns	47	—	—	—	—	—	1	—	48	—
Springerville	16	—	4	—	—	—	—	—	20	—
Unincorporated Apache County	48	1,140,073	7	112,390	—	—	9	72,800	64	1,325,263
COCHISE COUNTY	1,356	26,433,150	59	3,379,566	5	151,790	1,216	3,384,670	2,636	33,349,176
Benson	58	814,927	5	453,800	—	—	61	114,480	124	1,383,207
Bisbee	156	331,402	4	83,500	—	—	85	182,253	245	597,155
Douglas	121	3,718,982	5	1,000,459	—	—	177	497,014	303	5,216,455
Huachuca City	62	311,985	2	104,000	1	6,078	4	23,700	69	445,763
Sierra Vista	405	8,821,349	15	1,091,557	—	—	673	1,283,666	1,093	11,196,572
Tombstone	35	122,300	6	72,850	—	—	37	27,685	78	222,835
Unincorporated Cochise County	454	11,443,813	15	353,900	1	99,212	160	1,160,522	630	13,057,447
Willcox	65	868,392	7	219,500	3	46,500	19	95,350	94	1,229,742
COCONINO COUNTY	1,795	38,588,425	113	11,410,356	7	350,992	485	25,368,318	2,400	75,718,091
Flagstaff	451	16,785,878	87	6,037,662	3	210,242	261	24,854,852	802	47,888,634
Fredonia	29	313,908	2	12,500	3	137,750	17	30,100	51	494,258
Page	208	2,320,799	7	131,775	1	3,000	78	115,800	294	2,571,374
Unincorporated Coconino County	1,083	18,950,465	16	5,218,419	—	—	50	282,559	1,149	24,451,443
Williams	24	217,375	1	10,000	—	—	79	85,007	104	312,382
GILA COUNTY	848	10,961,401	49	3,030,669	4	406,243	260	4,541,738	1,161	18,940,051
Globe	78	747,550	3	375,000	1	200,000	36	1,133,200	118	2,455,750
Hayden	17	72,273	—	—	—	—	3	600	20	72,873
Miami	35	155,010	1	25,000	—	—	4	5,200	40	185,210
Payson	302	2,494,354	28	1,599,224	2	169,243	180	308,101	512	4,570,922
Unincorporated Gila County	416	7,492,214	17	1,031,445	1	37,000	37	3,094,637	471	11,655,296
GRAHAM COUNTY	463	6,877,090	42	4,328,157	3	156,000	55	3,232,772	563	14,594,019
Pima	15	274,890	—	—	—	—	—	—	15	274,890
Safford	131	1,452,865	25	830,482	3	156,000	35	218,222	194	2,657,569
Thatcher	81	1,720,400	6	3,075,000	—	—	17	2,638,550	104	7,433,950
Unincorporated Graham County	236	3,428,935	11	422,675	—	—	3	376,000	250	4,227,610
GREENLEE COUNTY	22	533,750	—	—	1	10,000	3	1,500	26	545,250
Clifton	4	60,000	—	—	—	—	—	—	4	60,000
Duncan	5	12,950	—	—	1	10,000	2	900	8	23,850
Unincorporated Greenlee County	13	460,800	—	—	—	—	1	600	14	461,400
MARICOPA COUNTY	24,008	559,381,766	2,066	485,939,949	560	159,706,038	19,753	284,095,021	46,387	1,489,122,774
Avondale	56	582,683	10	459,112	2	59,000	138	1,264,206	206	2,365,001
Buckeye	56	527,214	5	1,145,800	1	200,000	29	632,074	91	2,505,088
Chandler	1,656	40,385,345	45	2,774,985	21	18,071,032	1,877	12,900,825	3,599	74,132,187
El Mirage	12	126,326	1	150,000	—	—	—	—	13	276,326
Gila Bend	10	87,600	3	650,000	—	—	4	5,100	17	742,700
Gilbert	144	4,454,292	6	1,735,592	7	1,361,500	296	2,732,807	453	10,284,191
Glendale	1,572	38,703,471	186	20,705,000	3	3,171,000	2,219	7,656,179	3,980	70,235,650
Goodyear	—	—	7	2,253,663	1	1,395,228	131	1,141,040	139	4,789,931
Guadalupe	21	151,473	—	—	—	—	4	2,880	25	154,353
Mesa	2,252	39,575,872	254	64,113,906	22	8,805,452	3,022	41,081,262	5,550	153,576,492
Paradise Valley	314	16,054,135	1	99,500	—	—	313	2,816,042	628	18,969,677
Peoria	341	6,062,736	20	1,088,063	7	659,564	242	1,189,355	610	8,999,718
Phoenix	7,907	220,971,332	723	269,297,963	204	78,850,843	6,610	155,635,394	15,444	724,755,532
Scottsdale	1,489	56,559,835	195	55,662,018	2	1,577,704	2,448	15,293,539	4,134	129,093,096
Surprise	55	282,890	3	120,000	—	—	58	1,857,223	116	2,260,113
Tempe	1,416	24,529,900	345	35,149,600	288	44,879,715	681	12,909,400	2,730	117,468,615
Tolleson	73	272,667	1	200	—	—	22	40,072	96	312,939
Unincorporated Maricopa County	6,326	108,482,684	258	30,047,547	2	675,000	1,598	26,307,474	8,184	165,512,705
Wickenburg	53	928,161	2	39,000	—	—	7	295,050	62	1,262,211
Youngtown	255	643,150	1	448,000	—	—	54	335,099	310	1,426,249

Arizona Building Permits: Year-End Report (Continued)

	RESIDENTIAL*		COMMERCIAL		INDUSTRIAL		OTHER		TOTAL	
	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value
MOHAVE COUNTY	4,119	57,735,974	253	18,757,287	4	823,786	2,259	4,725,372	6,635	82,042,419
Kingman City	273	5,779,819	45	2,821,640	—	—	72	173,575	390	8,775,034
Kingman Area	616	5,916,414	18	1,237,426	1	33,852	408	433,581	1,043	7,621,273
Lake Havasu City	729	21,452,024	63	7,989,398	3	789,934	254	1,556,450	1,049	31,787,806
Lake Havasu Area	177	1,545,238	2	31,440	—	—	106	176,936	285	1,753,614
Mohave Valley North	1,393	13,589,363	88	5,023,657	—	—	834	1,485,169	2,315	20,098,189
Mohave Valley South	600	6,057,239	26	1,312,182	—	—	351	538,638	977	7,908,059
Dolan Springs	146	1,289,809	3	54,672	—	—	109	188,126	258	1,532,607
Sacramento Valley	137	1,414,473	1	120,000	—	—	109	107,663	247	1,642,136
Mohave County General	48	691,595	7	166,872	—	—	16	65,234	71	923,701
NAVAJO COUNTY	1,058	18,002,953	61	3,326,801	7	39,584	95	1,998,807	1,221	23,368,145
Holbrook	52	1,151,300	2	185,000	—	—	11	352,920	65	1,689,220
Show Low	106	1,016,117	10	591,986	—	—	16	268,238	132	1,876,341
Snowflake	33	—	1	—	—	—	10	—	44	—
Taylor	27	606,300	—	—	—	—	—	—	27	606,300
Unincorporated Navajo County	758	14,108,586	40	1,915,315	7	39,584	38	402,365	843	16,465,850
Winslow	82	1,120,650	8	634,500	—	—	20	975,284	110	2,730,434
PIMA COUNTY	10,517	227,856,558	579	194,668,416	11	3,739,146	5,604	52,752,429	16,711	479,016,549
Marana	9	—	1	—	—	—	3	—	13	—
Oro Valley	26	973,095	1	2,500	—	—	6	713,959	33	1,689,534
South Tucson	100	716,877	34	118,377	1	2,546	5	12,000	140	849,800
Tucson	3,263	53,705,335	348	82,998,584	8	2,714,600	2,896	37,318,008	6,515	176,736,527
Unincorporated Pima County	7,119	172,461,251	195	111,548,955	2	1,022,000	2,694	14,708,482	10,010	299,740,688
PINAL COUNTY	1,211	14,357,491	59	2,613,287	7	2,367,500	511	4,157,000	1,788	23,495,278
Casa Grande	196	4,728,808	14	854,430	3	2,345,000	104	936,411	317	8,864,649
Coolidge	171	477,952	—	—	—	—	30	571,543	201	1,049,495
Eloy**	38	157,880**	3	162,500	1	8,500	31	108,553**	73	437,433
Florence	21	414,150	2	15,000	—	—	47	236,021	70	665,171
Kearny	29	238,400	4	409,135	3	14,000	10	139,700	46	801,235
Mammoth	18	134,800	2	55,000	—	—	—	—	20	189,800
Superior	23	29,750	2	5,900	—	—	13	12,300	38	47,950
Unincorporated Pinal County	715	8,175,751	32	1,111,322	—	—	276	2,152,472	1,023	11,439,545
SANTA CRUZ COUNTY	165	6,571,519	3	142,196	1	725,000	38	624,786	207	8,063,501
Nogales	24	647,587	1	92,196	—	—	3	106,320	28	846,103
Patagonia	13	129,055	—	—	—	—	8	5,160	21	134,215
Unincorporated Santa Cruz County	128	5,794,877	2	50,000	1	725,000	27	513,306	158	7,083,183
YAVAPAI COUNTY	2,629	53,925,349	154	10,923,956	18	15,317,220	926	7,140,131	3,727	87,306,656
Chino Valley	140	2,129,086	6	286,000	—	—	61	121,013	207	2,536,099
Clarkdale	34	599,030	—	—	—	—	6	83,672	40	682,702
Cottonwood	189	1,696,245	25	1,203,345	3	64,000	43	581,474	260	3,545,064
Jerome	2	2,800	2	7,200	—	—	1	1,000	5	11,000
Prescott	528	7,833,999	57	4,544,761	3	515,720	521	2,101,528	1,109	14,996,008
Unincorporated Yavapai County	1,564	39,008,195	55	4,590,182	9	14,589,500	292	4,211,844	1,920	62,399,721
Prescott Valley	172	2,655,994	9	292,468	3	148,000	2	39,600	186	3,136,062
YUMA COUNTY	1,946	34,333,747	99	10,680,550	7	1,774,434	419	6,210,533	2,471	52,999,264
Parker	32	753,590	7	39,350	—	—	27	692,631	66	1,485,571
Somerton	41	658,027	3	36,000	—	—	25	28,807	69	722,834
Unincorporated Yuma County	1,224	19,055,537	48	5,019,478	4	250,251	135	2,505,677	1,411	26,830,943
Wellton	4	57,200	1	12,000	—	—	2	8,000	7	77,200
Yuma	645	13,809,393	40	5,573,722	3	1,524,183	230	2,975,418	918	23,882,716
YEAR TOTAL Maricopa County, 1980	24,008	559,381,766	2,066	485,939,949	560	159,706,038	19,753	284,095,021	46,387	1,489,122,774
YEAR TOTAL Maricopa County, 1979	32,990	751,562,454	2,207	464,555,779	512	128,181,526	24,254	279,252,629	59,963	1,623,552,388
PERCENT CHANGE	-27.	-26.	-6.	5.	9.	25.	-19.	2.	-23.	-8.
YEAR TOTAL Arizona, 1980	50,278	1,057,794,446	3,551	750,380,580	636	185,667,733	31,636	398,406,877	86,101	2,392,249,636
YEAR TOTAL Arizona, 1979	68,579	1,328,924,302	3,707	726,226,979	601	178,444,511	34,350	387,316,594	107,243	2,620,912,386
PERCENT CHANGE	-27.	-20.	-4.	3.	6.	4.	-8.	3.	-20.	-9.

*Includes mobile homes. N/R: No report. N/C: Not collected.

**Building permits for Eloy, July, 1980, were reported incorrectly in the August/September issue of *Arizona Business*. *Residential* dollar value, which had been shown as $8,800,000, should have been $8,800. *Other* dollar value, shown as $4,107,000 should have been $4,107. The year-end totals shown here are correct.

Arizona New Housing Starts: Year-End Report

1980

	BUILDING PERMITS ISSUED				
	1* Family	Duplex	3-4 Families	5 or More	Housing Units
APACHE COUNTY	127	—	—	1	159
Eagar	25	—	—	1	57
St. Johns	42	—	—	—	42
Springerville	15	—	—	—	15
Uninc. Apache Co.	45	—	—	—	45
COCHISE COUNTY	756	—	—	—	756
Benson	31	—	—	—	31
Bisbee	2	—	—	—	2
Douglas	48	—	—	—	48
Huachuca City	8	—	—	—	8
Sierra Vista	260	—	—	—	260
Tombstone	8	—	—	—	8
Uninc. Cochise Co.	373	—	—	—	373
Willcox	26	—	—	—	26
COCONINO COUNTY	992	14	5	5	1,137
Flagstaff	248	13	4	4	315
Fredonia	19	—	—	—	19
Page	128	—	—	—	128
Uninc. Coconino Co.	591	1	1	1	669
Williams	6	—	—	—	6
GILA COUNTY	501	4	2	1	520
Globe	18	2	1	—	25
Hayden	—	—	—	—	—
Miami	—	—	—	—	—
Payson	190	2	1	1	202
Uninc. Gila Co.	293	—	—	—	293
GRAHAM COUNTY	249	—	1	—	253
Pima	13	—	—	—	13
Safford	30	—	1	—	34
Thatcher	30	—	—	—	30
Uninc. Graham Co.	176	—	—	—	176
GREENLEE COUNTY	16	—	—	—	16
Clifton	4	—	—	—	4
Duncan	—	—	—	—	—
Uninc. Greenlee Co.	12	—	—	—	12
MARICOPA COUNTY	14,875	180	241	357	25,094
Avondale	50	—	1	—	54
Buckeye	17	—	—	1	77
Chandler	1,360	3	20	—	1,439
El Mirage	7	—	—	—	7
Gila Bend	4	—	—	3	40
Gilbert	89	—	1	—	93
Glendale	1,158	2	17	30	1,583
Goodyear	—	—	—	—	—
Guadalupe	7	—	—	—	7
Mesa	1,581	87	37	32	3,693
Paradise Valley	115	—	—	—	115
Peoria	229	—	—	—	229
Phoenix	4,630	37	59	115	9,629
Scottsdale	946	16	17	66	1,826
Surprise	16	—	—	—	16
Tempe	577	31	66	97	2,016
Tolleson	7	—	—	—	7
Uninc. Maricopa Co.	4,054	3	23	13	4,233
Wickenburg	21	—	—	—	21
Youngtown	7	1	—	—	9

*Includes mobile homes.

	BUILDING PERMITS ISSUED				
	1* Family	Duplex	3-4 Families	5 or More	Housing Units
MOHAVE COUNTY	2,048	8	13	17	2,271
Kingman City	139	—	—	—	139
Kingman Area	307	3	5	—	333
Lake Havasu City	556	2	3	12	704
Lake Havasu Area	91	—	—	—	91
Mohave Valley North	504	3	5	5	553
Mohave Valley South	279	—	—	—	279
Dolan Springs	70	—	—	—	70
Sacramento Valley	76	—	—	—	76
Mohave Co. General	26	—	—	—	26
NAVAJO COUNTY	706	2	1	2	734
Holbrook	21	—	1	—	25
Show Low	74	—	—	—	74
Snowflake	30	—	—	—	30
Taylor	16	—	—	—	16
Uninc. Navajo Co.	531	—	—	—	531
Winslow	34	2	—	2	58
PIMA COUNTY	6,192	88	62	59	8,800
Marana	7	—	—	—	7
Oro Valley	12	—	—	—	12
South Tucson	14	—	—	—	14
Tucson	1,537	81	61	51	3,433
Uninc. Pima Co.	4,622	7	1	8	5,334
PINAL COUNTY	663	5	23	—	756
Casa Grande	105	—	5	—	124
Coolidge	29	1	—	—	31
Eloy	4	—	—	—	4
Florence	10	2	—	—	14
Kearny	9	—	—	—	9
Mammoth	12	—	—	—	12
Superior	4	—	—	—	4
Uninc. Pinal Co.	490	2	18	—	558
SANTA CRUZ COUNTY	125	1	—	—	127
Nogales	11	—	—	—	11
Patagonia	8	—	—	—	8
Uninc. Santa Cruz Co.	106	1	—	—	108
YAVAPAI COUNTY	1,624	18	25	9	1,813
Chino Valley	84	—	—	1	90
Clarkdale	15	—	—	—	15
Cottonwood	69	2	2	—	79
Jerome	—	—	—	—	—
Prescott	219	5	15	4	305
Uninc. Yavapai Co.	1,116	9	5	4	1,189
Prescott Valley	121	2	3	—	135
YUMA COUNTY	1,176	6	26	7	1,331
Parker	20	—	—	—	20
Somerton	20	—	—	—	20
Uninc. Yuma Co.	779	2	6	5	836
Wellton	2	—	—	—	2
Yuma	355	4	20	2	453
YEAR TOTAL, Maricopa County, 1980	14,875	180	241	357	25,094
YEAR TOTAL, Maricopa County, 1979	24,128	174	270	518	38,239
PERCENT CHANGE	-38.	3.	-11.	-31.	-34.
YEAR TOTAL, Arizona, 1980	30,050	326	399	458	43,767
YEAR TOTAL, Arizona, 1979	44,542	338	387	626	63,783
PERCENT CHANGE	-33.	-4.	3.	-27.	-31.

The Arizona Business Scene

Arizona Tourism: 1980

Out-of-state visitors are important to the Arizona economy, for they consume goods and services produced by the state's businesses. These expenditures are presented in Table 1. The demand created by these visitors requires additional employment by Arizona's businesses beyond that which would otherwise be necessary. In fiscal year 1979-1980 an estimated 58,000 jobs in Arizona were directly related to tourism and 32,800 additional jobs were indirectly related to tourism. These 90,800 jobs represented approximately 9 percent of Arizona's total employment, thus, benefiting both businesses and individuals.

TABLE 1

TOURISM AND TRAVEL EXPENDITURES IN ARIZONA

	1979 ($000)	*1980 ($000)*	*Percentage Change*
Highway	$1,943,683	$2,207,170	13.6
Airline	971,774	1,024,500	5.4
Total (By Out-of-State Tourists)	$2,915,457	$3,231,670	10.8
Instate Travel	563,944	666,596	18.2
Total	$3,479,401	$3,898,266	12.0

Source: Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

Another benefit that affects state residents is the tax aspect of tourism: $36.4 million in state gasoline taxes and $104.8 million in state sales taxes were paid by out-of-state tourists in fiscal year 1979-1980. These tax contributions represented 32.5 percent of the total state gasoline tax collected and 13.1 percent of the total state sales tax collected.

In recent years tourism in Arizona showed steady growth both in the number of tourists and in the amount of their expenditures. In 1980, however, tourism expenditures grew only 12 percent, after three consecutive years of 18 percent or greater growth. When the inflation rate is considered, the real change in tourism expenditures in 1980 from 1979 was negative and was the first decrease in real expenditures during the period in which tourism data has been compiled.

This decrease in inflation-adjusted expenditures probably related to the recession of 1980 and to the continued rapid inflation felt by all consumers, including tourists and potential tourists. These economic conditions contributed to an overall decrease in the number of tourists visiting Arizona in 1980; however the number of highway tourists was approximately the same as in 1979, while the number of airline tourists decreased sharply in 1980, by 7.1 percent. The high and rapidly increasing costs of gasoline and air travel were probable causes of this reduction in the number of tourists; gasoline prices increased 36.7 percent and air fares rose 29.3 percent in 1980, as measured by the Metropolitan Phoenix Consumer Price Index.

A major statewide tourism study was completed in 1980 by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University. The study, an update of the original study done in 1976, also introduces several new topics. The figures in this article present a brief summary of the major

findings of the study and some of the notable changes in tourism patterns. All of the findings will be presented in a forthcoming publication, *Tourism and Travel in Arizona*.

The total tourism and travel expenditures in Table 1 are shown in more detail in Table 2. The expenditures during 1979 were originally estimated with calculations and information based on tourism patterns shown in the 1976 study. However, the tourism patterns changed between the 1976 study and the 1980 study, so it was important to calculate the 1979 figures in two ways: the first is based on the 1976 tourism patterns; the more recent figures are based on the 1980 tourism patterns. The updated 1979 figures shown in Tables 1 and 2 are based on the 1980 study, and although they are lower than previously published tourism figures for that year, they are considered to be the most accurate estimate of expenditures during 1979.

TABLE 2

ARIZONA TOURISM AND TRAVEL EXPENDITURES
(millions)

Year	*Lodging*	*Food*	*Transportation*	*Other*	*Total*
1980	$840.9	$1,206.0	$ 910.2	$ 941.2	$3,898.3
1979	762.9	1,075.0	802.4	839.1	3,479.4
1979*	837.4	738.8	1,042.2	1,422.3	4,040.7
1978*	688.3	663.6	816.4	1,257.4	3,425.7
1977*	560.1	581.2	689.2	1,054.2	2,884.6

*Expenditures computed under methodology of 1976 study.

Source: Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

One of the major differences between the two studies is that the proportion of airline tourists to total tourists decreased considerably from 1976 to 1980. Since the expenditure pattern of airline tourists is different from that of highway tourists, all four categories of expenditures as well as the total tourist expenditures, are affected. In addition, the average highway tourist in 1980 spent less on lodging, entertainment, retail and other consumption than the average highway tourist in 1976. The average airline tourist in 1980 spent much less on entertainment, retail, and other consumption than in 1976 and the average instate tourist in 1980 took fewer overnight trips, reducing instate lodging expenditures from 1976. Thus, tourists visiting Arizona in 1980 reported a number of basic changes in expenditure patterns compared to tourists in 1976.

The two major population centers in Arizona receive approximately two-thirds of the total out-of-state tourist expenditures. In fiscal year 1979-1980 (the time period analyzed in the new study), Metropolitan Phoenix received 49 percent of the state's tourism expenditures and Metropolitan Tucson received 19 percent. The three counties receiving the next largest shares of tourist expenditures were Coconino (7.9 percent), Yuma (4.7 percent), and Mohave (4.5 percent). The proportions received by each of these three counties are greater than would be expected given their population size, thus establishing each of these counties as popular tourist spots.

The majority of Arizona tourists come by highway, although airline tourists are an important segment (see Table 3). Highway visitors and airline visitors differ in a number of ways. Airline travelers tend to have a smaller party size, stay somewhat longer in Arizona, and spend considerably more money per day than highway visitors. Although an airline party averages only 1.5 persons, compared to 2.5 per highway party, an airline party spends more than twice as much per trip than a highway party ($850 compared to $400).

TABLE 3

TOURIST PARTIES IN ARIZONA, 1979-1980

Tourist Parties (Out of State)	*1979*	*1980*	*Percentage Change*
Highway	5,274,000	5,281,000	0.1
Airline	1,245,000	1,157,000	-7.1

Source: Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

Highway travelers tend to visit more areas of the state than airline travelers and visit some of the non-urban counties in larger numbers. Airline travelers, on the other hand, generally remain in the urbanized areas, since over half of them come to Arizona for the specific reason of business or attending a convention. In contrast, over half of the highway visitors are on vacation or passing through the state. Highway travelers come primarily from the nearby Pacific and mountain regions of the country, while larger shares of the airline tourists come from the East, particularly the Great Lakes states and the mid-Atlantic and south Atlantic states.

During fiscal year 1979-1980, nearly 700,000 convention visitors came to Arizona; slightly more than half arrived by air. Although convention visitors do not

stay as long in Arizona as other tourists, they are an important segment of the overall tourism industry, and they spend more money per day. The majority of convention sites are in Phoenix, Scottsdale, and Tucson.

Determining the reasons that tourists are attracted to Arizona is important to maintaining the growth of tourism. For both airline and highway visitors two primary factors influenced decisions to visit Arizona: information from friends and relatives, and the impression created by previous visits to the state. To a large extent, the state and its residents sell themselves; approximately one-third of all visitors come to Arizona primarily to visit friends and relatives. The traditional forms of advertising, such as travel literature and magazines, have a lesser impact on decisions to visit Arizona.

While actual tourism expenditures continued to increase in 1980, the inflation-adjusted growth rate declined, presenting a concern to both the tourism industry and the state government. At this time the outlook for 1981 is conservative as many of the factors contributing to the slowdown in tourism in 1980 continue into 1981 — an unstable national economy, high and rising gasoline prices, and high and rising air fares. If improvements are made in these economic conditions, the Arizona tourism industry should return to its former pattern of rapid growth later in 1981.

A Survey of Arizona Business Conditions

HAROLD FEARON

The Arizona economy was flat in February, following a slight upward movement in January, according to results from the monthly business survey of the Purchasing Management Association of Arizona and the Purchasing Management Association of Southern Arizona. Inventory levels declined somewhat, while new orders received from customers, production rates, and employment remained unchanged in February compared to January. Prices advanced again in February, but at the smallest rate in any of the past five months. While the data show that the Arizona economy is holding its own, there is no evidence of any upward momentum, and the growth rate in the first quarter will be much less than sensational.

The purchasing business survey now is in its nineteenth year of consecutive monthly reporting on the current status of the Arizona economy. Data are gathered through a questionnaire sent at the close of each month to purchasing managers throughout the state, asking them to indicate the direction of activity — higher, unchanged, or lower — on six key indicators of economic activity in the month just ended. Since these purchasing managers deal daily with the forces of supply and demand, they are in a prime position to provide timely and accurate information on current business trends, which enables economic turning points to be spotted.

Dr. Fearon is Professor of Management in the College of Business Administration, Arizona State University.

Prices paid for major purchased items went up again in February, but at a smaller rate than in January and the smallest increase since last September. Fifty-five percent of the purchasing managers reported they paid higher prices in February than in January; 40 percent saw prices unchanged; and only 5 percent said prices declined. It is possible that, following the national trend of declining raw material prices as shown by the Bureau of Labor Statistics Index of Raw Materials, the rate of price increases faced by Arizona firms also is beginning to drop a bit. If so, that is good news for the long-term future growth rate of the economy, but it is too early to tell whether this is the beginning of a trend.

Delivery time on shipments from vendors continued to stretch out in February, but the rate was only half of that in January and the lowest since last September. Longer delivery times were reported by 23 percent of the firms; 14 percent received faster delivery service from their vendors. The relatively small increases on this indicator provide further evidence that the Arizona economy is operating on a fairly stable plateau.

Purchased materials inventory levels declined in February, following a slight rise in January. Higher purchased stocks were reported by 24 percent of the firms, while a larger 30 percent reduced inventory investment. Inventory levels have dropped each month, beginning in April, 1980, with the exception of last November and January. This signals that Arizona firms are being very cautious in making inventory decisions, and it also shows that raw material inventory levels are well under control and balanced with the slow rate of economic growth now being experienced.

New orders received from customers enjoyed only a marginal increase, which was substantially less than in the previous month. Thirty-three percent of the firms said their order books increased in February, but an almost equal 30 percent saw a decrease in the rate of new business bookings. This indicator has shown only lackluster business growth ever since the last quarter of 1979.

Production of Arizona firms showed no change in February, with an equal 29 percent of firms reporting higher and lower output rates compared to January. Since production follows new order bookings closely, this result is in line with other indicators.

Employment showed essentially no change, with 19 percent saying they added to their workforce in February and 18 percent trimming payrolls. This makes the third consecutive month of no growth in employment.

Thus, the Arizona economy finished out February with a noticeable lack of upward momentum. This makes the third consecutive month of very sluggish economic growth. While many people expect the new administration in Washington to take dramatic action to get the economy moving again, no quick fix is possible, and it is likely that the Arizona economy will see several more months of very slow growth or no growth at all.

The results of the February purchasing are shown in Table 1.

TABLE 1

FEBRUARY PURCHASING SURVEY

Key Indicator	*Percent of Purchasing Managers Indicating Each Response (February compared to January)*		
	Higher	*Same*	*Lower*
Prices paid for major commodities	55	40	5
Delivery time from vendors	23	63	14
Purchased materials inventory level	24	46	30
New orders received	33	37	30
Production	29	42	29
Employment	19	63	18

Source: Purchasing Management Association of Arizona and Purchasing Management Association of Southern Arizona.

ARIZONA SALES OF ELECTRICAL POWER
By Months in Millions of KWH*

Current Month:	*Actual:* 1981	1980	*Percent Change Current Month From Same Month/ Prev. Year*	*Previous Month*
January	2347.7	2200.0	+ 6.7	+ 3.2

* Based on reports from major suppliers.

Arizona Building Permits: Monthly Report

JANUARY, 1981

	RESIDENTIAL		COMMERCIAL		INDUSTRIAL		OTHER		TOTAL	
	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value
APACHE CO.	9	55,950	1	57,000	2	618,000	2	1,200	14	732,150
Eagar	2	35,500	1	57,000	2	618,000	—	—	5	710,500
St. Johns	3	N/C	—	—	—	—	1	N/C	4	N/C
Springerville	1	N/C	—	—	—	—	—	—	1	N/C
Unincorporated	3	20,450	—	—	—	—	1	1,200	4	21,650
COCHISE CO.	91	1,416,189	6	276,000	—	—	74	925,183	171	2,617,372
Benson	4	75,000	—	—	—	—	1	250	5	75,250
Bisbee	9	35,700	—	—	—	—	—	—	9	35,700
Douglas	9	223,716	—	—	—	—	4	15,399	13	239,115
Huachuca City	4	2,071	—	—	—	—	—	—	4	2,071
Sierra Vista	26	383,094	2	180,000	—	—	48	110,188	76	673,282
Tombstone	4	3,100	2	46,000	—	—	3	1,850	9	50,950
Unincorporated	32	673,808	—	—	—	—	18	797,496	50	1,471,304
Willcox	3	19,700	2	50,000	—	—	—	—	5	69,700
COCONINO CO.	81	1,689,804	5	80,519	1	9,600	29	435,842	116	2,215,765
Flagstaff	16	550,482	4	42,100	1	9,600	22	229,200	43	831,382
Fredonia	1	8,000	—	—	—	—	—	—	1	8,000
Page	15	136,529	—	—	—	—	2	160,500	17	297,029
Unincorporated	43	959,593	1	38,419	—	—	4	45,942	48	1,043,954
Williams	6	35,200	—	—	—	—	1	200	7	35,400
GILA CO.	47	561,428	2	17,000	—	—	18	107,408	67	685,836
Globe	2	5,000	—	—	—	—	7	78,100	9	83,100
Hayden	2	1,200	—	—	—	—	—	—	2	1,200
Miami	1	690	—	—	—	—	1	8,000	2	8,690
Payson	20	210,358	2	17,000	—	—	7	16,808	29	244,166
Unincorporated	22	344,180	—	—	—	—	3	4,500	25	348,680
GRAHAM CO.	34	491,743	—	—	—	—	4	4,385	38	496,128
Pima	—	—	—	—	—	—	—	—	—	—
Safford	9	125,550	—	—	—	—	4	4,385	13	129,935
Thatcher	4	50,000	—	—	—	—	—	—	4	50,000
Unincorporated	21	316,193	—	—	—	—	—	—	21	316,193
GREENLEE CO.	2	29,270	—	—	—	—	—	—	2	29,270
Clifton	1	N/C	—	—	—	—	—	—	1	N/C
Duncan	—	—	—	—	—	—	—	—	—	—
Unincorporated	1	29,270	—	—	—	—	—	—	1	29,270
MARICOPA CO.	2,064	52,244,486	190	38,101,347	43	9,195,439	1,687	22,421,477	3,984	121,962,749
Avondale	5	7,680	1	34,000	—	—	9	11,300	15	52,980
Buckeye	5	10,230	—	—	—	—	1	504	6	10,734
Chandler	392	11,746,622	17	1,335,000	2	552,840	384	971,640	795	14,606,102
El Mirage	3	1,643	—	—	—	—	2	860	5	2,503
Gila Bend	2	27,500	—	—	—	—	—	—	2	27,500
Gilbert	11	289,780	1	96,000	1	10,000	18	14,689	31	410,469
Glendale	107	2,441,760	18	2,334,000	3	44,000	149	425,451	277	5,245,211
Goodyear	—	—	—	—	—	—	5	7,259	5	7,259
Guadalupe	3	34,100	—	—	—	—	—	—	3	34,100
Mesa	144	4,409,582	12	1,428,100	1	502,652	263	2,783,344	420	9,123,678
Paradise Valley	22	950,054	—	—	—	—	14	85,694	36	1,035,748
Peoria	18	282,176	5	433,320	—	—	25	1,355,287	48	2,070,783
Phoenix	586	16,548,511	43	17,205,771	15	3,801,547	489	7,949,977	1,133	45,505,806
Scottsdale	98	4,755,286	9	922,306	—	—	115	806,185	222	6,483,777
Surprise	5	37,225	—	—	—	—	1	1,700	6	38,925
Tempe	75	3,280,700	68	12,236,100	21	4,284,400	103	4,033,300	267	23,834,500
Tolleson	8	15,100	—	—	—	—	1	12,000	9	27,100
Unincorporated	559	7,323,130	16	2,076,750	—	—	106	3,959,787	681	13,359,667
Wickenburg	1	33,000	—	—	—	—	—	—	1	33,000
Youngtown	20	50,407	—	—	—	—	2	2,500	22	52,907

Arizona Building Permits: Monthly Report (Continued)

JANUARY, 1981	RESIDENTIAL*		COMMERCIAL		INDUSTRIAL		OTHER		TOTAL	
	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value
MOHAVE CO.	284	4,411,737	18	754,559	1	367,640	212	522,547	515	6,056,483
Kingman City	13	240,496	4	138,500	—	—	7	17,031	24	396,027
Kingman Area	55	688,236	2	133,280	—	—	56	55,264	113	876,780
Lake Havasu City	44	1,481,055	4	80,839	—	—	15	85,914	63	1,647,808
Lake Havasu Area	5	25,544	—	—	—	—	8	155,880	13	181,424
Mohave Valley N.	102	1,169,088	4	307,308	—	—	63	93,877	169	1,570,273
Mohave Valley S.	38	477,540	3	59,688	—	—	39	83,840	80	621,068
Dolan Springs	12	108,096	—	—	—	—	10	14,361	22	122,457
Sacramento Valley	10	144,976	1	34,944	—	—	10	11,108	21	191,028
Mohave Co. General	5	76,706	—	—	1	367,640	4	5,272	10	449,618
NAVAJO CO.	35	490,937	4	81,044	—	—	6	5,784	45	577,765
Holbrook	1	40,000	—	—	—	—	1	2,000	2	42,000
Show Low	3	41,262	3	52,244	—	—	—	—	6	93,506
Snowflake	3	N/C	—	—	—	—	—	—	3	N/C
Taylor	4	49,000	—	—	—	—	—	—	4	49,000
Unincorporated	21	355,675	1	28,800	—	—	3	1,884	25	386,359
Winslow	3	5,000	—	—	—	—	2	1,900	5	6,900
PIMA CO.	664	13,150,734	43	10,657,615	3	295,986	430	4,791,131	1,140	28,895,466
Marana	1	N/C	—	—	—	—	2	N/C	3	N/C
Oro Valley	—	—	—	—	—	—	—	—	—	—
South Tucson	10	43,160	—	—	2	30,686	—	—	12	73,846
Tucson	201	2,489,029	28	3,552,115	1	265,300	197	4,061,334	427	10,367,778
Unincorporated	452	10,618,545	15	7,105,500	—	—	231	729,797	698	18,453,842
PINAL CO.	422	1,738,273	4	2,000	—	—	36	108,143	462	1,848,416
Apache Jct.	44	598,283	—	—	—	—	27	18,595	71	616,878
Casa Grande	17	463,597	—	—	—	—	—	—	17	463,597
Coolidge	18	26,513	4	2,000	—	—	—	—	22	28,513
Eloy	4	9,160	—	—	—	—	—	—	4	9,160
Florence	—	—	—	—	—	—	1	200	1	200
Kearny	3	58,500	—	—	—	—	—	—	3	58,500
Mammoth	1	12,000	—	—	—	—	—	—	1	12,000
Superior	—	—	—	—	—	—	—	—	—	—
Unincorporated	335	570,220	—	—	—	—	8	89,348	343	659,568
SANTA CRUZ CO.	8	205,070	—	—	—	—	2	11,140	10	216,210
Nogales	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Patagonia	1	7,000	—	—	—	—	1	140	2	7,140
Unincorporated	7	198,070	—	—	—	—	1	11,000	8	209,070
YAVAPAI CO.	212	4,728,136	19	1,480,812	3	27,700	73	678,596	307	6,915,244
Chino Valley	11	169,550	2	9,000	1	5,000	1	3,000	15	186,550
Clarkdale	5	15,450	—	—	1	17,500	—	—	6	32,950
Cottonwood	13	140,650	1	94,000	—	—	10	14,238	24	248,888
Jerome	2	4,400	—	—	—	—	—	—	2	4,400
Prescott	48	983,098	4	305,440	—	—	29	199,407	81	1,487,945
Prescott Valley	27	463,376	5	181,872	—	—	1	139,776	33	785,024
Unincorporated	106	2,951,612	7	890,500	1	5,200	32	322,175	146	4,169,487
YUMA CO.	47	614,530	8	841,002	1	7,350	30	620,561	86	2,083,443
Parker	—	—	—	—	—	—	4	237,400	4	237,400
Somerton	5	62,500	—	—	—	—	2	3,000	7	65,500
Unincorporated	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Wellton	—	—	—	—	—	—	2	16,500	2	16,500
Yuma	42	552,030	8	841,002	1	7,350	22	363,661	73	1,764,043
Total Maricopa County, January, 1981	2,064	52,244,486	190	38,101,347	43	9,195,439	1,687	22,421,477	3,984	121,962,749
Total Maricopa County, January, 1980	2,337	48,065,187	228	55,810,898	48	11,784,910	1,828	17,229,925	4,441	132,890,920
Percent Change	-11	8	-16	-31	-10	-21	-7	30	-10	-8
Total Arizona, January, 1981	4,000	81,828,287	300	52,348,898	54	10,521,715	2,603	30,633,397	6,957	175,332,297
Total Arizona, January, 1980	4,337	78,835,259	330	76,726,111	56	12,750,196	2,602	25,366,302	7,325	193,677,868
Percent Change	-7	3	-9	-31	-3	-17	—	20	-5	-9

*Includes mobile homes.
N/C: Not collected.
N/R: No report; data for this month will be combined with data reported for the following month.

Arizona New Housing Starts: Monthly Report

JANUARY, 1981

	BUILDING PERMITS ISSUED					
	1 Family	Mobile * Homes	Duplex	3-4 Families	5 or More	Total Units
APACHE CO.	4	—	—	—	—	4
Eagar	1	—	—	—	—	1
St. Johns	—	—	—	—	—	—
Springerville	1	—	—	—	—	1
Unincorporated	2	—	—	—	—	2
COCHISE CO.	29	16	—	—	—	45
Benson	2	1	—	—	—	3
Bisbee	1	—	—	—	—	1
Douglas	3	—	—	—	—	3
Huachuca City	—	—	—	—	—	—
Sierra Vista	8	3	—	—	—	11
Tombstone	—	1	—	—	—	1
Unincorporated	15	11	—	—	—	26
Willcox	—	—	—	—	—	—
COCONINO CO.	31	21	1	—	—	54
Flagstaff	7	—	1	—	—	9
Fredonia	—	—	—	—	—	—
Page	2	6	—	—	—	8
Unincorporated	22	14	—	—	—	36
Williams	—	1	—	—	—	1
GILA CO.	17	10	—	—	—	27
Globe	—	—	—	—	—	—
Hayden	—	—	—	—	—	—
Miami	—	—	—	—	—	—
Payson	7	4	—	—	—	11
Unincorporated	10	6	—	—	—	16
GRAHAM CO.	9	6	1	—	—	17
Pima	—	—	—	—	—	—
Safford	2	—	1	—	—	4
Thatcher	—	—	—	—	—	—
Unincorporated	7	6	—	—	—	13
GREENLEE CO.	2	—	—	—	—	2
Clifton	1	—	—	—	—	1
Duncan	—	—	—	—	—	—
Unincorporated	1	—	—	—	—	1
MARICOPA CO.	1,137	235	11	36	61	2,441
Avondale	1	2	—	—	—	3
Buckeye	—	—	—	—	—	—
Chandler	373	—	—	16	—	437
El Mirage	—	—	—	—	—	—
Gila Bend	1	—	—	—	—	1
Gilbert	3	—	—	1	—	7
Glendale	75	—	—	—	—	75
Goodyear	—	—	—	—	—	—
Guadalupe	—	—	—	—	—	—
Mesa	105	—	6	2	2	144
Paradise Valley	6	—	—	—	—	6
Peoria	10	—	—	—	—	10
Phoenix	299	39	1	6	9	644
Scottsdale	63	—	—	—	—	63
Surprise	—	4	—	—	—	4
Tempe	48	—	3	11	50	703
Tolleson	1	—	—	—	—	1
Unincorporated	149	190	1	—	—	341
Wickenburg	1	—	—	—	—	1
Youngtown	1	—	—	—	—	1

	BUILDING PERMITS ISSUED					
	1 Family	Mobile * Homes	Duplex	3-4 Families	5 or More	Total Units
MOHAVE CO.	63	98	1	—	—	163
Kingman City	5	—	—	—	—	5
Kingman Area	10	26	—	—	—	36
Lake Havasu City	23	2*	1	—	—	27
Lake Havasu Area	—	1	—	—	—	1
Mohave Valley N.	13	41	—	—	—	54
Mohave Valley S.	7	16	—	—	—	23
Dolan Springs	—	8	—	—	—	8
Sacramento Val.	3	2	—	—	—	5
Mohave General	2	2	—	—	—	4
NAVAJO CO.	16	13	—	—	—	29
Holbrook	1	—	—	—	—	1
Show Low	1	2	—	—	—	3
Snowflake	3	—	—	—	—	3
Taylor	1	3	—	—	—	4
Unincorporated	10	8	—	—	—	18
Winslow	—	—	—	—	—	—
PIMA CO.	205	200	6	2	3	595
Marana	—	1	—	—	—	1
Oro Valley	—	—	—	—	—	—
South Tucson	1	—	—	—	—	1
Tucson	45	39	4	2	2	160
Unincorporated	159	160	2	—	1	433
PINAL CO.	32	324	—	—	—	356
Apache Junc.	8	22	—	—	—	30
Casa Grande	10	—	—	—	—	10
Coolidge	—	—	—	—	—	—
Eloy	—	—	—	—	—	—
Florence	—	—	—	—	—	—
Kearny	1	1	—	—	—	2
Mammoth	—	—	—	—	—	—
Superior	—	—	—	—	—	—
Unincorporated	13	301	—	—	—	314
SANTA CRUZ CO.	5	—	—	—	—	5
Nogales	N/R	N/R	N/R	N/R	N/R	N/R
Patagonia	—	—	—	—	—	—
Unincorporated	5	—	—	—	—	5
YAVAPAI CO.	84	47	2	3	—	147
Chino Valley	3	3	—	—	—	6
Clarkdale	—	—	—	—	—	—
Cottonwood	4	2	—	—	—	6
Jerome	—	—	—	—	—	—
Prescott	17	2	—	2	—	27
Prescott Valley	14	4	2	1	—	26
Unincorporated	46	36	—	—	—	82
YUMA CO.	7	1	3	5	1	39
Parker	—	—	—	—	—	—
Somerton	1	1	—	—	—	2
Unincorporated	N/R	N/R	N/R	N/R	N/R	N/R
Wellton	—	—	—	—	—	—
Yuma	6	—	3	5	1	37
Total, Maricopa Co., January, 1981	1,137	235	11	36	61	3,531
Total, Maricopa Co., January, 1980	1,127	200	16	20	74	2,531
Percent Change	—	17	-31	79	-17	-30
Total, Arizona, January, 1981	1,641	971	25	46	65	3,924
Total, Arizona, January, 1980	1,801	592	34	31	80	5,065
Percent Change	—	17	-31	79	-17	-30

*Beginning with this report, mobile home permits are listed separately instead of being included with single-family permits.

N/R: No report; data for this month will be for the following month.

Maricopa County Retail Food Prices

FEBRUARY, 1981

Retail food prices in Maricopa County rose 0.7 percent in February, following a 1.2 percent increase in January. The food price survey is compiled by the Bureau of Business and Economic Research, College of Business Administration, at Arizona State University. Cosponsor of the study is Valley National Bank. The February index of 260.5 indicates that shoppers would now have to pay $26.05 for a similar basket of foods that would have cost $10.00 in 1967. These foods could have been purchased for $23.04 one year ago. The February, 1981 index reflects a 13.1 percent gain over the February, 1980 value.

Responsible for this month's higher index value were increases for *Fruits and Vegetables* (2.4 percent), followed by *Cereals and Bakery Products* (2.1 percent) and *Dairy Products* (1.0 percent). A slight gain was posted in the subgroup *Other Foods* (0.5 percent), while *Meats, Poultry, Fish, and Eggs* dropped slightly (-0.6 percent).

Higher prices in several categories of *Fruits and Vegetables* led to the increase in that subgroup. Decreased production of the winter vegetable crop in Mexico, coupled with poor weather during the growing season in both Mexico and Florida, contributed to the surge in tomato prices, up 32.5 percent during February. Prices also climbed for bananas (15.2 percent) and oranges (14.8 percent). Moderating these gains was a reduction in lettuce prices (-14.1 percent).

Most prices in the *Cereals and Bakery Products* subgroup rose or were unchanged this month. Sweet rolls, coffee cake, and doughnuts jumped 11.4 percent, followed by fresh cake and cupcakes (8.3 percent). For the second consecutive month, rising rice prices contributed to the 3.0 percent increase in the category of rice, macaroni, and cornmeal. Price reductions for fresh biscuits, rolls, and muffins (-4.4 percent) partially offset the gains posted for the overall subgroup.

The one percent gain in the *Dairy Products* subgroup was due in part to a 3.3 percent increase in cheese prices and a 1.7 percent rise for fresh milk (other than whole milk) and cream. These advances were partially counteracted by a drop in the miscellaneous dairy products category (-3.0 percent).

Price increases outweighed the decreases in the *Other Foods* subgroup during February, resulting in a small overall gain. A sharp hike in peanut butter prices led to an 8.9 percent gain in the category of nondairy substitutes, imitation milk, and peanut butter. Increases of 2.6 percent were posted for noncarbonated beverages (excluding coffee), along with nuts, potato chips, and other snacks. Decreases in the subgroup included items in the frozen, prepared food category (-3.0 percent) followed by roasted coffee (-2.7 percent) and freeze dried/instant coffee (-2.1 percent).

Falling prices for chicken and pork contributed to the decline in *Meats, Poultry, Fish, and Eggs*. Prices for both fresh or frozen chicken parts and fresh whole chicken dropped, 16.6 percent and 9.2 percent respectively. With the exception of pork chops (up 3.7 percent), all categories of pork were down, notably sausage (-5.4 percent), noncanned ham (-4.5 percent), and bacon (-4.1 percent). These declines were partially offset by increases for fresh or frozen fish and shellfish (5.8 percent), eggs (4.3 percent), and chuck roast (2.9 percent).

A comparison of November, 1980 Food Consumed at Home for Maricopa County with four selected metropolitan areas (Table 1, page 36) reveals that the outlays required to purchase a foodstuffs group in November, 1980 (obtainable for an outlay of $10.00 at 1967 average prices) were $25.22 in Maricopa County; $25.98 in Los Angeles-Long Beach; $26.35 in San Francisco-Oakland; $26.33 in Chicago-Northwestern Indiana; and averaged $26.21 in the United States.

TABLE 1

INDEX FOR FOOD CONSUMED AT HOME
Maricopa County, United States, and Selected Metropolitan Areas
(Average 1967 = 100 percent)

Group	Maricopa County Feb. '81[a]	Maricopa County Nov. '80[b]	United* States Nov. '80	Los Angeles* Long Beach Nov. '80	San Francisco Oakland Nov. '80	Chicago* North western Indiana Nov. '80
Food Consumed at Home	260.5	252.2	262.1	259.8	263.5	263.3
Cereals and Bakery Products	248.6	237.3	255.8	264.9	259.2	264.6
Meats, Poultry, Fish, and Eggs	261.0	261.6	254.9	251.4	259.2	263.8
Dairy Products	228.9	220.0	235.7	229.6	231.3	226.5
Fruits and Vegetables	249.0	231.2	235.3	247.9	258.0	252.8
Other Foods Consumed at Home	291.5	281.0	314.8	309.5	318.4	314.2

*Computed from data contained in *The Consumer Price Index*, U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C.

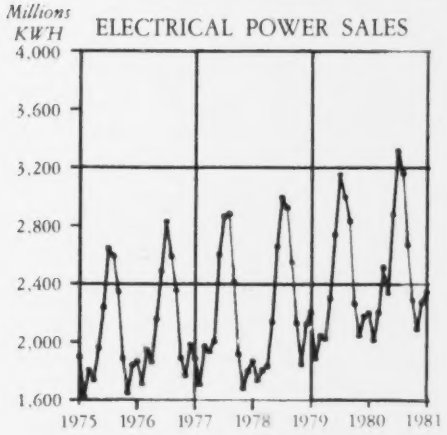
[a]Maricopa County food prices are reported for the month closest to publication.

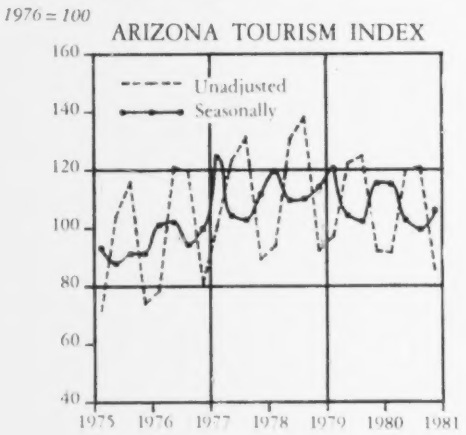
[b]Comparisons of food prices among various cities and the United States average are made on the basis of earlier months because of the lag in collecting price reports from these other areas.

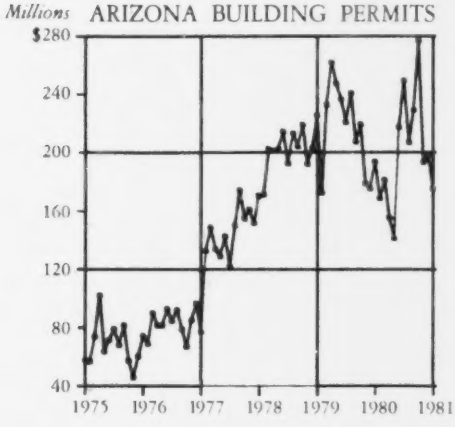
Note: Index Comparisons between Maricopa County and the other regions show only that food prices in Maricopa County have increased more or less than food prices in the other regions since 1967. The indices cannot be used to determine the actual differences in food price levels between the regions.

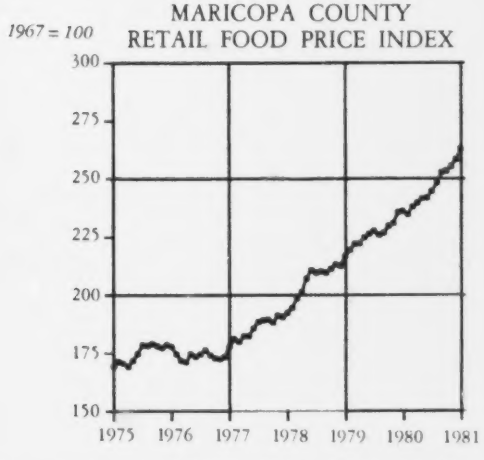
Source: Bureau of Business and Economic Research, College of Business Administration, Arizona State University, in cooperative cosponsorship with Valley National Bank.

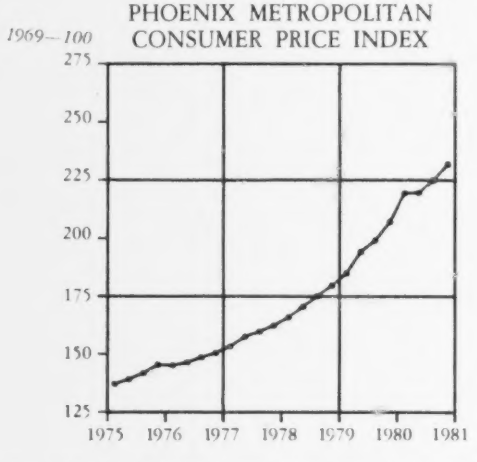
Arizona Economic Indicators











Source: All data compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University.